Jeffrey A. Turkstra

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3/31/2026

Education

Purdue University School of Electrical and Computer Engineering — **West Lafayette, IN**
Doctor of Philosophy (PhD) — *May 4, 2013*
Dissertation: Metachory: An Unprivileged OS Kernel for General Purpose Distributed Computing
Available at https://metachory.org/metachory.pdf
Major Professor: Prof. David G. Meyer

Purdue University School of Electrical and Computer Engineering — **West Lafayette, IN**
Master of Science in Electrical and Computer Engineering (MSECE) — *May 5, 2007*

Purdue University School of Electrical and Computer Engineering — **West Lafayette, IN**
Bachelor of Science in Computer Engineering (BSCmpE) — *May 8, 2004*

Professional Appointments

Teaching Associate Professor — **August 2023–present**
Purdue University Department of Computer Science — *West Lafayette, IN*
- Head and structure organizational hierarchies of 70+ reports including 8-20 graduate teaching assistants (TAs) and 25-52 undergraduate TAs per semester
- Supervise software development, testing, and QA teams of 4-6 people for creation of homework and project assignments
- Mentor and supervise graduate and undergraduate research assistants
- Collaborate with fellow faculty in the advancement of computer science pedagogy
- Coordinate and collaborate with other campus departments and units in support of the university's teaching, research, and service mission
- Develop and deliver courses in CS at all levels
- Conduct scholarship of teaching and learning projects

Assistant Professor of the Practice — **January 2017–August 2023**
Purdue University Department of Computer Science — *West Lafayette, IN*

Software Engineer — **June 2009–December 2016**
Purdue University Rosen Center for Advanced Computing — *West Lafayette, IN*
- Developed virtualization middleware for supercomputers
- Managed infrastructure and computing resources associated with nanoHUB and the HUBzero project

Engineer — **September 2009–December 2011**
Microfluidic Innovations, LLC — *West Lafayette, IN*
- Designed, prototyped, tested, and fabricated a digital control system including multiple discrete computing elements
- Coded firmware and low-level API interfacing libraries in C and assembly language

Research Assistant — **January 2008–May 2009**
Network for Computational Nanotechnology — *West Lafayette, IN*

Ski Lift Operator — **December 2008–April 2009**
Steamboat Ski & Resort Corporation Lift Operations — *Steamboat Springs, CO*

Instructor — **August 2005–May 2008**
Purdue University School of Electrical and Computer Engineering — *West Lafayette, IN*

Research Assistant — **8/2004–8/2005, 8/2006–8/2007**
Purdue University Engineering Computer Network — *West Lafayette, IN*

Teaching Assistant — **August 2002–May 2007**
Purdue University School of Electrical and Computer Engineering — *West Lafayette, IN*

Peer Counselor — **May 2002–May 2004**
Purdue University Division of Financial Aid — *West Lafayette, IN*

Awards

Senior Member Assocation of Computing Machinery (ACM) **September 3, 2025**
- Recognizes ACM members with at least 10 years of professional experience and at least 5 years of Professional Membership in the last 10 years, who have demonstrated performance through technical leadership, and technical or professional contributions

Favorite Faculty Award Nominee **2024, 2021**
- University-wide, annual award recognizing outstanding faculty as nominated by students

Teaching Academy Member Nominee **2023**
- University-wide academy that "strives to bring together the best teaching faculty and graduate students across campus to create a collective voice for teaching excellence. Members are nominated and selected by their peers."

Association for Computing Machinery (ACM) Faculty Award **2022**
- Departmental, annual award for "best faculty member" selected by vote of Purdue CS undergraduate students and awarded by the Purdue Student Chapter of ACM

College of Science Team Award **2019**
- College-level, annual award recognizing efforts by faculty teams in College of Science

Charles C. Chappelle Fellow **2005–2006**
- University-wide, academic year fellowship including one year stipend and tuition coverage selected based on character and intellect

Graduate Student Teaching Excellence Award **2006**
- University-wide, annual award honoring graduate students for their dedication to Purdue students and their outstanding teaching contributions

Magoon Award for Outstanding Teaching Assistant **2005**
- Departmental, annual award selected by both faculty and students in ECE recognizing exemplary work as a teaching assistant

Publications

1. Hart, R., Hays, B., McMillin, C., Rezig, E. K., Rodriguez-Rivera, G., Turkstra, J. A. "Eastwood-Tidy: C Linting for Automated Code Style Assessment in Programming Courses." Proceedings of the 2023 54th SIGCSE Technical Symposium on Computer Science Education (Toronto, ON, CA), 2023.
2. Rodriguez-Rivera, G., Turkstra, J. A., Buckmaster, J. M., Leclainche, K. A., Montgomery, S. K., Reed, W. J., Sullivan, R. P., Lee, J. B. "Tracking Large Class Projects in Real-Time Using Fine-Grained Source Control." Proceedings of the 2022 53rd SIGCSE Technical Symposium on Computer Science Education (Providence, RI, USA), 2022.

Workshops

3. Blanchard, J., Campbell, J., Herman, G., Logan, P., Sotomayor, B., Turkstra, J. A., Weese, J. L., Yan, L. "Professional Development for Teaching-Track Faculty 2026." 57th SIGCSE Technical Symposium on Computer Science Education (St. Louis, MO), 2026.
4. Campbell, J., Herman, G., Logan, P., Sotomayor, B., Turkstra, J. A., Yan, L. "Professional Development Pre-Symposium Event for Teaching-Track Faculty." 56th SIGCSE Technical Symposium on Computer Science Education (Pittsburgh, PA), 2025.
5. Herman, G., Logan, P., Moreshet, T., Sotomayor, B., Turkstra, J. A., Weese, J. L., Yan, L. "Professional Development Pre-Symposium Workshop for Teaching-Track Faculty." 55th SIGCSE Technical Symposium on Computer Science Education (Portland, OR), 2024.
6. Herman, G., Logan, P., Sotomayor, B., Turkstra, J. A., Weese, J. L., Yan, L. "Professional Development Pre-Symposium Workshop for Teaching-Track Faculty." 54th SIGCSE Technical Symposium on Computer Science Education (Toronto, ON, CA), 2023.

Posters

7. Tindell, S., Hiatt, H., Bechtlofft, M., Sorrells, C., Turkstra, J., Starr, H. "Developing LewisStructures.net: An Educational Resource for Chemistry Students at Purdue." Purdue Undergraduate Research Symposium, West Lafayette, IN, November 19, 2024.

Invited Talks

8. Turkstra, J. A., "Mentoring Undergraduates Panel," Panelist, CRA-E Professional Development Pre-Symposium Event for Teaching-Track Faculty, SIGCSE 2025, Pittsburgh, PA, February 26, 2025.

Teaching

All evaluations are out of 5.0

Term	Course	Teaching Evaluation	Enrollment	TA Supervision
Fall 2025	CS 180: Problem Solving and Object-Oriented Programming	4.39	395	20 GTAs, 51 UTAs
	CS 307: Software Engineering I	4.43	111	5 GTAs, 3 UTAs
Spring 2025	CS 240: Programming in C	4.39	302	14 GTAs, 45 UTAs
	CS 240: Programming in C	4.43	288	14 GTAs, 45 UTAs
Fall 2024	CS 307: Software Engineering I	4.43	162	6 GTAs, 3 UTAs
	CS 252: Systems Programming	4.03	85	5 GTAs, 21 UTAs
Summer 2024	CS 50011: Introduction to Systems for Information Security (online)	N/A[1]	2	None
	CS 50010: Foundational Principles of Information Security (online)	N/A[1]	3	None
Spring 2024	CS 240: Programming in C	4.36	371	20 GTAs, 52 UTAs
	CS 240: Programming in C	4.50	383	20 GTAs, 52 UTAs
Fall 2023	CS 307: Software Engineering I	4.42	151	5 GTAs, 3 UTAs
	CS 252: Systems Programming	3.99	130	6 GTAs, 17 UTAs
	CS 50011: Introduction to Systems for Information Security	N/A[1]	4	1 Grad Instructor
	CS 50010: Foundational Principles of Information Security	N/A[1]	3	1 Grad Instructor
Summer 2023	CS 50011: Introduction to Systems for Information Security (online)	3.50	16	1 Grad Instructor
	CS 50010: Foundational Principles of Information Security (online)	3.50	18	1 Grad Instructor
Spring 2023	CS 240: Programming in C	4.33	631	21 GTAs, 33 UTAs
	CS 307: Software Engineering I	4.40	191	8 GTAs, 3 UTAs
Fall 2022	CS 180: Problem Solving and Object-Oriented Programming	4.53	446	24 GTAs, 40 UTAs
	CS 307: Software Engineering I	4.43	187	7 GTAs, 5 UTAs
Summer 2022	CS 50011: Introduction to Systems for Information Security (online)	4.14	8	None
	CS 50010: Foundational Principles of Information Security (online)	4.29	9	None
Spring 2022	CS 240: Programming in C	4.57	235	13 GTAs, 19 UTAs
	CS 240: Programming in C	4.70	238	13 GTAs, 19 UTAs
	CS 590: Code Style Analysis	N/A[1]	1	None
Fall 2021	CS 180: Problem Solving and Object-Oriented Programming	4.63	290	15 GTAs, 28 UTAs
	CS 240: Programming in C	4.45	261	9 GTAs, 16 UTAs
	CS 590: Code Style Analysis	N/A[1]	1	None
Summer 2021	CS 50011: Introduction to Systems for Information Security (online)	4.5	4	None
	CS 50010: Foundational Principles of Information Security (online)	4.75	4	None
Spring 2021	CS 307: Software Engineering I	4.4[2]	90	4 GTAs, 4 UTAs
	CS 307: Software Engineering I (online)	4.3[2]	40	4 GTAs, 4 UTAs
Fall 2020	CS 240: Programming in C	4.5[2]	169	8 GTAs, 15 UTAs
	CS 240: Programming in C (online)	4.5[2]	67	8 GTAs, 15 UTAs
	CS 180: Problem Solving and Object-Oriented Programming	N/A[1]	313	18 GTAs, 30 UTAs

	CS 490: Code Style Analysis	N/A[1]	1	None
Summer 2020	CS 50011: Introduction to Systems for Information Security (online)	N/A[3]	2	None
	CS 50010: Foundational Principles of Information Security (online)	N/A[1]	2	1 Grad Instructor
Spring 2020	CS 240: Programming in C	3.9	381	11 GTAs, 38 UTAs
	CS 307: Software Engineering I	N/A[1]	120	4 GTAs, 6 UTAs
Fall 2019	CS 252: Systems Programming	4.2	46	4 GTAs, 25 UTAs
	CS 252: Systems Programming	3.7	73	4 GTAs, 25 UTAs
Summer 2019	CS 50011: Introduction to Systems for Information Security (online)	4.5	5	None
	CS 50010: Foundational Principles of Information Security (online)	N/A[1]	5	1 Grad Instructor
Spring 2019	CS 240: Programming in C	3.7	165	8 GTAs, 33 UTAs
	CS 240: Programming in C	3.7	162	8 GTAs, 33 UTAs
	CS 490: Malware & Vulnerability Analysis	N/A[1]	1	None
Fall 2018	CS 240: Programming in C	3.7	106	6 GTAs, 25 UTAs
	CS 307: Software Engineering I	3.8	87	5 GTAs, 6 UTAs
	CS 180: Problem Solving and Object-Oriented Programming	3.7	214	11 GTAs, 14 UTAs
Summer 2018	CS 252: Systems Programming	4.0	34	2 GTAs, 6 UTAs
Spring 2018	CS 307: Software Engineering I	3.6	149	5 GTAs, 4 UTAs
	CS 252: Systems Programming	3.9	114	8 GTAs, 28 UTAs
Fall 2017	CS 307: Software Engineering I	3.5	178	6 GTAs, 6 UTAs
	CS 180: Problem Solving and Object-Oriented Programming	3.9	185	12 GTAs, 32 UTAs
Summer 2017	CS 250: Computer Architecture	2.8	43	2 GTAs, 2 UTAs
	CS 50011: Introduction to Systems for Information Security	3.5	2	None
Spring 2017	CS 307: Software Engineering I	4.0	166	4 GTAs, 7 UTAs
Spring 2008	ECE 469: Operating Systems Engineering	4.33	35	2 TAs
Fall 2007	ECE 364: Software Engineering Tools	N/A[1]	38	1 TA
Spring 2007	ECE 364: Software Engineering Tools	3.62	54	4 TAs
Fall 2006	ECE 364: Software Engineering Tools	4.5	30	2 TAs
Spring 2006	ECE 364: Software Engineering Tools	N/A[1]	55	2 TAs
Fall 2005	ECE 264: Advanced C Programming	3.45	92	2 TAs

Software

SimpleQuiz: Web-based Quiz Platform with Geolocation **Fall 2024–present**

- Online quiz platform that couples simple questions with geolocation-based attendance taking
- Web-based platform with minimal requirements (no additional hardware or software installation needed)
- Used by 1,343 total students in 2 offerings of CS 307, 1 offering of CS 180, 1 offering of CS 240, and 1 offering of CS 252.
- First release Fall 2024, last major revision Spring 2026

ReportTrack: Software Engineering Team Progress Tracker **Summer 2025–present**

- Web-based platform for team and individual report submission, tracking, and assessment
- Development began Summer 2025, with anticipated deployment mid-Fall 2025

[1] No evaluations collected by department
[2] Rating originally out of 4.0, linearly scaled to be out of 5.0
[3] No evaluations received

BoilerSpace: Integrated Student Gradebook **Spring 2024–present**

- Integrated back-end computation/entry/tracking and frontend web interface that provides a simple, clean website for student grades
- Significantly improves efficiency surrounding grading, regrading, and releasing grades
- Integrated with CS 240 and CS 252 backend grading infrastructure
- Used by 2,199 total students in 2 offerings of CS 240, 2 offering of CS 307, 1 offering of CS 180, and 1 offering of CS 252. Currently in use Spring 2026.
- Faculty Users: Prof. Christopher May
- First release Spring 2024

Lewis Structures Online Resource **Fall 2023–present**

- Internet website providing educational materials related to Lewis Structures in Chemistry
- Includes pedagogical material, quizzes, interactive models, and video content
- Poster presented at 2024 Purdue Undergraduate Research Symposium [7]
- First public release Fall 2024. Over 25,000 unique visitors through March 2026
- Available at `https://lewisstructures.net/`
- Collaborators: Prof. Hannah Starr, Megan Bechtlofft, Hailey Hiatt, Caroline Sorrells, Sidney Tindell

PeerVal: Peer Evaluation System **Fall 2017–present**

- Peer ranking and evaluation system that creates a multiplier used to scale project grades
- Increases accountability and fairness in student teams
- Used by 10,976 total students in 18 offerings of CS 307, 23 offerings of CS 407, 12 offerings of CS 180, 3 offerings of CS 408, 3 offerings of CS 252, and 1 offering of CS 441
- Collaborators: Prof. Buster Dunsmore, Keehwan Park, Evelyn Merz
- Faculty Users: Profs. Buster Dunsmore, Tony Bergstrom, Michael Borkowski, Roopsha Samanta, Ben Delaware, Suresh Jagannathan, Xiangyu Zhang, George Adams, Gustavo Rodriguez-Rivera
- Available at `https://endor.cs.purdue.edu/~pucsevals/`
- Last major revision Spring 2026

C-Lab: Test Module Framework for C **Fall 2018–present**

- Rigorous test module framework for developing C programming assignments
- Includes its own malloc() library that detects memory errors, improper allocation, and other errors
- Functions to generate and manipulate input files of arbitrary text format
- Structural support for discrete test cases, point tracking, and grading for large class sizes
- Used by 4,888 students in 12 offerings of CS 240
- Collaborators: Brian Hays, Jordan Field, Yubo Shao, and Chris Potter
- Faculty Users: Profs. Xiangyu Zhang, Suresh Jagannathan, Christopher May
- Ongoing, iterative development cycle with two major revisions (latest Spring 2020)

Eastwood: Code Style Linter for C **Fall 2019–present**

- Code linter that assesses and provides feedback to students with regard to adherence to the course code standard
- Used by 4,330 students in 10 offerings of CS 240 and 3 offerings of CS 252
- Latest version built using LLVM
- Collaborators: Rowan Hart, Connor McMillin, Brian Hays, and Elkindi Rezig
- Available at `https://github.com/novafacing/eastwood-tidy.git`
- Ongoing, iterative development cycle with three major revisions (latest Fall 2021)

EnCourse: Real-Time Class Project Analytics and Tracking **Fall 2018–present**

- Submission, revision, and analytics tracking system for large enrollment courses
- System used by 9,463 total students in 12 offerings of CS 240 and 17 offerings of CS 252
- Collaborators: Prof. Gustavo Rodriguez-Rivera, Jordan Buckmaster, Killian LeClainche, Shawn Montgomery, William Reed, Ryan Sullivan, and Jarett Lee
- Available at `https://www.cs.purdue.edu/homes/grr/Encourse`
- Maintained by Prof. Gustavo Rodriguez-Rivera

mandalore.cs.purdue.edu: Systems Host **Spring 2017–present**

- Spring 2024: Configured new server and migrated existing infrastructure from endor.cs.purdue.edu to mandalore.cs.purdue.edu
- CAS-authenticated server that hosts course websites and software tools including above peer evaluation system for multiple courses including CS 240, CS 252, CS 180, CS 307, CS 407, and CS 408
- Hosts various source control repositories for development and testing of course-related software and assignments

Purdue "All-American" Marching Band Multimedia Archive **Summer 2008–present**

- Video archive website and system written in PHP with a MariaDB database used by over 2,335 registered users
- Over 1,091 videos dating back to 1935 transcoded and available for clinical study by directors and members of Purdue University Bands
- Additionally used as a teaching tool to illustrate concepts and examples in CS 307—Software Engineering I
- Available at `https://purdueband.com/`

Curriculum and Course Development

CS 240: Programming in C

Spring 2025
- Integrated SimpleQuiz with lectures to incentivize attendance and obtain better feedback
- Supervised creation of eleven new homework assignments
- Continued to improve and utilize BoilerSpace gradebook
- Co-created three new exams

Spring 2024
- Revised course outcomes to better reflect content and goals
- Supervised creation of eleven new homework assignments
- Altered course administrative structure, creating new head TA roles to support growing enrollments
- Created custom gradebook software to more efficiently manage grading and calculation
- Additional iteration and bug fixes for C-Lab
- Created three new exams

Spring 2023
- Supervised two graduate TAs and two undergraduate TAs in creation of eleven new homework assignments and associated testing modules
- Additional improvements and bug fixes with C-Lab
- Supervised UTA in augmenting EnCourse's [2] data aggregation and visualization
- Created three new exams

Spring 2022
- Supervised graduate TA in creation of ten new homework assignments and associated testing modules
- Supervised revision and bug fixes to further extend course linter in addition to data collection for improvements and usage in [1]
- Created three new exams

Fall 2021
- Supervised development team of four TAs over summer to create ten new homework assignments and associated testing modules
- Supervised revision and bug fixes to further extend course linter
- Integrated additional security-related lecture content including buffer overflow exploits
- Created four new exams, including two separate final exams, and fourteen quizzes

Fall 2020
- Recorded 26 asynchronous video lectures including "special guests" like Darth Vader and a campus squirrel
- Supervised development team of six TAs over summer to create ten new homework assignments and associated testing modules
- Supervised development and implementation of new code style linter in Clang (and related CS 490 course)
- Configured and deployed web-based IRC chat client and server for asynchronous text-based support

Spring 2020
- Recorded 13 asynchronous video lectures
- Supervised creation of twelve new homework assignments and associated testing modules
- Created new MIDI parsing and manipulating project to replace remaining exams for pivot to online instruction
- Created one new midterm exam
- Worked with developers to completely rewrite and improve test module framework

Spring 2019
- Created thirteen new homework assignments and associated testing modules
- Created three new exams and nine written quizzes
- Created hardware interfacing lecture demo using a Raspberry Pi
- Wrote ∼15 page introduction to the Linux CLI for students
- Improved test module harness and malloc() library used by all homework assignments
- Worked with course staff to rewrite and improve course linter

Fall 2018
- Created deck of 649 slides loosely based on Prof. Gustavo Rodriguez-Rivera's and Dr. Richard Kennell's slides
- Created thirteen homework assignments and associated testing modules
- Created nine written quizzes
- Worked with graduate TA to create new code standard and linter for course

CS 307: Software Engineering I

Fall 2025
- Integrated Gantt charts with sprint planning documents, updating relevant rubrics
- Created new homework assignment

Fall 2024
- Integrated BoilerSpace gradebook and SimpleQuiz software into course
- Further revised ethics material to include case studies from current events
- Augmented existing question pool for final exam

Fall 2023
- Integrated quality criteria into sprint review assessment process
- Updated grading approach and rigor to improve consistency among project coordinators

Fall 2022
- Augmented existing question pool and created new final exam
- Revised slide deck with updated ethics examples and industry-relevant material

Spring 2021
- Integrated latest ACM and IEEE codes of ethics into lecture content
- Created new homework assignment reflecting above
- Created, delivered, and recorded 23 synchronous video lectures

Spring 2020
- Created and deployed new course website using PHP
- Revised grading policies and rubrics to increase rigor and consistency
- Revamped team peer evaluation policies to improve fairness
- Transitioned 25 teams of 4-6 students to remote development environment mid-semester

Fall 2018
- Developed new grading rubrics and process for sprint reviews to increase consistency and fairness

Spring 2018
- Created three new homework assignments covering ethics, open source development processes, and incremental development
- Created question pool containing approximately 100 questions to supplement existing exam material

Fall 2017
- Engaged in an intensive course redesign effort for CS 307 - Software Engineering I with Purdue IMPACT Program
- Developed new learning outcomes and objectives
- Established plan to create flipped-format lectures on git revision control software
- Revised course structure to create a more student-centered, active learning-based environment
- Developed assessment plan to evaluate how course redesign influences student outcomes and learning
- Created a new peer evaluation system using PHP and MariaDB

Spring 2017
- Created new deck of 778 slides loosely based on Prof. Buster Dunsmore's and Prof. Fred Mowle's slides

CS 180: Problem Solving and Object-Oriented Programming

Fall 2025
- Served in lead instructor role, coordinating three sections of the course and 881 students
- Oversaw homework and project creation
- Co-authored three exams

Fall 2022
- Integrated PeerVal into team project assessment process
- Revised example code and lecture content based on updates by Prof. Buster Dunsmore

Fall 2021
- Integrated Purdue trivia "breaks" into lecture content
- Further revised example code and lecture content based on updates by Prof. Buster Dunsmore
- Restructured lecture order to better support individual and group projects

Fall 2018
- Updated course content and lectures to cover latest Java release features
- Revised live coding demos, adding additional examples and refining existing code

Fall 2017
- Created new deck of 803 slides loosely based on Prof. Buster Dunsmore's slides
- Deployed and utilized new technology including "HotSeat," a back-channel communication mechanism

CS 252: Systems Programming

Fall 2024
- Supervised creation of new variants of two existing projects (shell scripting and shell project)
- Rewrote three projects to improve student experience
- Significant improvements to autograding for webserver project
- Integrated BoilerSpace and SimpleQuiz into course

Fall 2023
- Supervised creation of new variants of two existing projects (shell scripting and malloc() with buddy allocation)
- Integrated latest major revision of PeerVal into course

Fall 2019
- Created new variants of four existing projects (shell scripting, malloc(), shell, and web server)
- Created new multi-threading project and final group project (system monitor)
- Created first automated test suite for web server project
- Modified peer evaluation system developed for CS 307 (now used also in 407 and 408) to support CS 252 group projects
- Migrated course website away from DokuWiki to templatized HTML/CSS

Spring 2018
- Created new deck of 1,068 slides loosely based on Profs. Gustavo Rodriguez-Rivera's, Doug Comer's, and Dennis Brylow's (Marquette University) slides
- Revised and created projects for the course including shell scripting, malloc() implementation, shell, and web server with HTTPS support

Hands-On Malware Analysis

Spring 2019
- Worked with Prof. Dongyan Xu and two undergraduate students in the creation of course content—including syllabus, four labs, and midterm exam
- Supervised related independent study (CS 490) course with one undergraduate student

CS 50011: Introduction to Systems for Information Security II

Summer 2017
- Architected, designed, and implemented all aspects of course in preparation for first offering
- Created syllabus, lectures (459 slides), four laboratory exercises, and an exam based on high-level course outcomes provided by department

Graduate Students Supervised

Megan E. Bechtlofft (M.S.)

Lewis Structures Project — *Fall 2025–present*
- Ongoing collaboration with Prof. Hannah Starr regarding online educational resource for Lewis Structures
- https://lewisstructures.net/

Rowan B. Hart (M.S.)

CS 590 - Code Style Analysis — *Spring 2022, Fall 2021*
- One credit hour elective course involving intensive development and analysis related to Eastwood [1]
- Resulting manuscript accepted and published in ACM SIGCSE 2023 Proceedings

Undergraduate Students Supervised

Megan E. Bechtlofft

Lewis Structures Project — *Fall 2023–Spring 2025*
- Funded Undergraduate Research Assistant (URA) working in collaboration with Prof. Hannah Starr to develop online educational resources on Lewis Structures

Evelyn A. Merz

PeerVal — *Summer 2024*
- Funded Undergraduate Research Assistant (URA) involving data collection, analysis, and co-authorship of manuscript on PeerVal

Rowan B. Hart

CS 490 - Code Style Analysis — *Fall 2020*
- One credit hour elective course involving intensive development and analysis related to Eastwood [1]

Connor J. McMillin

CS 490 - Malware & Vulnerability Analysis — *Spring 2019*
- Three credit hour course that was approved as an elective for the security track

Departmental Service

Undergraduate Curriculum Committee

August 2020–August 2021, August 2018–August 2019, August 2024–present
- Discuss and recommend proposals impacting curriculum for undergraduate students including course proposals, program changes, degree requirements, and general policies impacting instruction and learning
- Worked with faculty in all areas to update and revise degree tracks

Faculty Observer, CS 407—Software Engineering Senior Project

Spring 2017–present
- Attend three sprint reviews and presentations throughout the semester for three to four teams
- Provide feedback and advice to seniors in completing their capstone project

Feasting with Faculty

Fall 2017, Fall 2018–present
- Share lunch with 12-18 first year Computer Science students per week, increasing faculty contact outside of the classroom

MS Graduate Admissions Committee

August 2022–May 2024, August 2019–August 2020
- Evaluate applicants for admission to the Master of Science in Computer Science degree program

Professor of Practice Search Committee
August 2023–May 2024, August 2021–May 2022
- Work with other committee members to build a pool of diverse, qualified applicants for two open faculty positions
- Conduct screening interviews
- Present candidates and make recommendations to department head and faculty
- Comply with university and legal requirements in adherence to EAEO and other policies

Class Insights Dashboard
June 2017–May 2018
- Department representative for "Class Insights Dashboard" project, which aims to give faculty/instructors insights into the academic profile of students in their classes

College Service

Purdue Science Student Council (PSSC) Snack and Chat Faculty Guest
Fall 2021–present
- Participate in evening events with fellow College of Science faculty
- Interact with dozens of students, holding discussions over a variety of different topics

Emerging Leaders Science Scholars Faculty Mentor
August 2021–May 2025
- Serve as a mentor to high-achieving students from populations historically underserved by Purdue
- Meet with students once a week
- Assist in articulating short and long-term goals
- Help improve mentee's leadership, teamwork, creative thinking, decision making, and interpersonal skills
- Facilitate community building and career advancement
- Provide psychosocial support

University Service

Clinical/Professional/Teaching Faculty Advisory Board
July 2025–present
- Help guide university efforts to support and promote the success of C/P/T faculty at Purdue
- Serve as contact point for and representative of C/P/T faculty in the College of Science
- Serve as resource for collecting information about the C/P/T faculty experience at Purdue
- Develop guides/recommendations for best practices for annual reviews and promotion, mentoring, and professional development

Purdue Linux Users Group (PLUG) Faculty Advisor
March 2022–present

University Bands
2006–present
- Purdue "All-American" Marching Band Videographer
- Develop and maintain https://purdueband.com/ video archive, making over 1,000 historic videos available to students and faculty

University Military Programs Committee
July 2021–June 2024
- Review academic credentials of officers nominated to fill ROTC faculty vacancies
- Observe ROTC class and co-curricular activity
- Support ROTC activities including commissioning events, change of commands, etc.

University Grade Appeals Committee
July 2018–June 2024
- Hear and make determinations regarding formal grade appeals that are unresolvable at the department and college levels.

University Residences Faculty Fellow
August 2017–May 2022
- Work with floor resident assistant (RA) to help engage and integrate students with the university community
- Organize events for students (e.g., evening "dark site" astronomy excursion, bowling, hiking, etc.)

Faculty Marshal
Spring 2019
- Assembled and conducted faculty representatives for the College of Science commencement exercises

IT Operational Oversight Committee
October 2015–December 2017
- Assist VP of IT in identifying and investigating ideas with potential to improve information technology on campus
- Author and co-author reports and surveys for subcommittees (e.g., investigation of solutions to "overwhelming" amounts of campus-originating email, network access policies for visitors, faculty/staff email outsourcing)

Administrative & Professional Staff Advisory Committee (APSAC)
June 2015–December 2016
- Represented over four hundred and fifty administrative and professional staff
- Served as a two-way conduit between A/P staff and the administration

Summer Undergraduate Research Fellowship (SURF) Mentor
Summer 2005

Professional Membership and Service

Computing Research Association, Education (CRA-E)
Organizing Committee Member *2022–present*
- Collaborate with faculty from a variety of universities to propose and run [3,4,5,6].

ACM Special Interest Group on Computer Science Education (SIGCSE)
Program Committee Member *2022–present*

Association for Computing Machinery (ACM)
Senior Member *2020–present*
- Special Interest Group on Computer Science Education (SIGCSE) Member

Purdue Student Publishing Foundation Board of Directors
Faculty Director *2019–present*
- Periodically review operations of the Purdue Exponent—Purdue's independent student newspaper—and any other publications or services sponsored by PSPF
- Provide financial, long-range planning, and personnel policy guidance
- Approve the annual budget and major revisions (amounts exceeding $1,000)
- Screen candidates, monitor appointments, and make appointments for various positions including publisher, general manager, advertising director, production director, and editor in chief

Professional Development

ACM Special Interest Group on Computer Science Education (SIGCSE) St. Louis, MO
Presenter, Attendee, and Reviewer *February 18–February 21, 2026*
- Facilitated Computing Research Association (CRA-E) Professional Development for Teaching-Track Faculty Event [3]

ACM Special Interest Group on Computer Science Education (SIGCSE) Pittsburgh, PA
Presenter, Attendee, and Reviewer *February 26–March 1, 2025*
- Facilitated Computing Research Association (CRA-E) Professional Development for Teaching-Track Faculty Event [4]
- Served as panelist for Undergraduate Mentoring panel [8]

ACM Special Interest Group on Computer Science Education (SIGCSE) Portland, OR
Attendee and Reviewer *March 20–March 23, 2024*
- Facilitated Computing Research Association (CRA-E) Professional Development for Teaching-Track Faculty Event [5]

ACM Special Interest Group on Computer Science Education (SIGCSE) Toronto, ON, CA
Presenter and Reviewer *March 15–March 18, 2023*
- Co-presented "Eastwood-Tidy: C Linting for Automated Code Style Assessment in Programming Courses"
- Facilitated Computing Research Association (CRA-E) Professional Development for Teaching-Track Faculty Event [6]

ACM Special Interest Group on Computer Science Education (SIGCSE) Providence, RI
Presenter *March 2–March 5, 2022*
- Co-presented "EnCourse: Tracking Large Class Projects in Real-Time Using Fine-Grained Source Control"
- Attended Computing Research Association (CRA-E) Professional Development for Teaching-Track Faculty Event

QPR Suicide Prevention Gatekeeper Program
Certified Course Completion *November 18, 2021*

IMPACT-X+: Instruction Matters: Purdue Academic Course Transformation
Participant *Summer 2020*
- Engaged in a a medium-touch, two-week long course development program for CS 240 - Programming in C to build and design a "resilient, flexible, engaging, equitable, and student-centered course"

ACM Special Interest Group on Computer Science Education (SIGCSE) Minneapolis, MN
First Time Attendee *February 27–March 2, 2019*

IMPACT: Instruction Matters: Purdue Academic Course Transformation
Faculty Fellow *Fall 2017*

- Engaged in a semester long, intensive course redesign effort for CS 307 - Software Engineering I
- Collaborated with other faculty and CIE staff to create new course outcomes and learning objectives

Summer Instructor Symposium
Attendee *Summer 2017*

Community Service

Wabash Valley Astronomical Society
Member *2017–present*

- Promote astronomy among the local community through outreach efforts
- Volunteer at the West Lafayette Observatory and assist ASTR 263 teaching staff during evening observation events

Boy Scouts of America
Troop 335 Unit of Scouter Reserve *2023–2025*

- Serve as and support designated adult POC (Point of Contact) for certain troop events
- Support and mentor patrol leaders (PLs) and senior patrol leaders (SPL)

Boy Scouts of America
Cub Scout Pack 3337 Committee Campout Chair *2018–2023*

- Supervised, promoted, and coordinated attendance at unit, district, and council camps and events
- Supervised youth leadership to arrange leadership/chaperons, transportation, tour permits, facility/camp reservations and first-aid for all outings
- Reported to the unit committee

Lafayette Citizens Band Board of Directors
Director *2021–2023*

Extraprofessional Activities

Amateur (HAM) Radio Operator
W9TKY - Technician Class *2013–present*

Purdue University Bands
Various Positions *2000–present*

- Videographer beginning 2006 season to present
- Leadership positions included Section Leader and Assistant Section Leader
- Obtained top rank (colonel) as operations officer in the student officer corps
- Ensembles included Purdue "All-American" Marching Band, Basketball Pep Bands, and Concert Band

Purdue Summer Concert Band
Principal Alto Saxophonist *2010–2024*

Purdue Pilots, Inc. Flying Club
Member *2009–2023*

- Obtained Private Pilot License (PPL), certificate number 3473175, on February 13, 2010

Purdue Ski & Snowboard Club
Member *2004–2007*

- Travel included Aspen, CO; Summit County, CO; Big Sky, MT; Jackson Hole, WY; and Steamboat Springs, CO

Purdue Skydiving Club
Member *2006–2008*

Unreal Internet Relay Chat Daemon (UnrealIRCd)
Head Coder *2001–2004*

- Maintained the stable branch for an open source Linux daemon, making regular releases

Purdue Low Power VLSI Laboratory
Undergraduate Research Assistant *August 2003–December 2003*

- Assisted Prof. Kaushik Roy's research group in the development of low power SRAM cache