

Curriculum Vitae
Gregory Thomas Croisdale
CSE PhD Candidate

University of Michigan
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<https://gregory.dev>

Technology Skills	<p><i>Programming Languages:</i> Python, JavaScript/TypeScript, C, C++, C, React (Native), Mips, RISC-V.</p> <p><i>Operations Technologies:</i> Continuous Integration, Git, Docker.</p> <p><i>Programs:</i> Blender, Adobe Photoshop, Adobe Illustrator, Adobe Premiere, GIMP.</p>	
Academic Background	<p><i>PhD Student in Computer Science</i> University of Michigan <i>M.S. earned in May 2024</i></p> <p><i>B.S. Computer Science</i> University of Tennessee, Knoxville</p>	Aug 2022 - Current Aug 2018 - May 2022
Experience	<p><i>Teaching Assistant, Alien Anatomy: How ChatGPT Thinks</i> University of Michigan, Ann Arbor Program in Computing for the Arts and Sciences With Mark Guzdial and Steve Abney</p> <ul style="list-style-type: none">• Created and delivered course lectures,• Designed and evaluated assignments,• Managed a group of undergraduate graders, and• Created interactive course components to demonstrate principles of AI. <p><i>Teaching Assistant, EECS 183</i> University of Michigan, Ann Arbor College of Electrical Engineering and Computer Science With Ben Torralva, Steven Bogaerts, and William Arthur</p> <ul style="list-style-type: none">• Taught a weekly lab section,• Met weekly to administrate over 30 lab sections,• Oversaw grading team,• Assisted with exam and assignment creation. <p><i>Research Assistant</i> University of Tennessee, Knoxville MoSIS Research Group Advised by Dr. Jian Liu</p> <ul style="list-style-type: none">• Regularly met a team of Undergraduate, Graduate, and Professional researchers,• Independently developed various applications for research and reproducibility purposes,• Read, wrote, and submitted research papers with group members,• Performed collaborative data science and application development. <p><i>Research Assistant</i> University of Tennessee, Knoxville PAIRS Research Group Advised by Dr. Alex Williams & Dr. Austin Henley</p> <ul style="list-style-type: none">• Regularly met a team of Undergraduate, Graduate, and Professional researchers,• Independently developed various applications for research and reproducibility purposes,• Read, wrote, and submitted research papers with group members,	Jan 2024 - April 2024 Aug 2023 - Dec 2023 Jan 2022 - Aug 2022 Jan 2021 - Jan 2022

- Performed collaborative data science and application development.

	<i>Research Assistant</i> Stony Brook University TEALab Research Group Advised by Dr. Rezaul Chowdhury	Jun 2021 - Oct 2021
	• Regularly met a team of Undergraduate, Graduate, and Professional researchers, • Wrote code generation suites for theoretical algorithms created by group, • Assisted in the benchmarking of suite in ARM Supercomputer Ookami, • Wrote and submitted research paper to leading journal.	
	<i>Teaching Assistant, COSC 102 and COSC 130</i> University of Tennessee, Knoxville College of Electrical Engineering and Computer Science Advised by Dr. Stephen Marz	Jan 2020 - May 2021
	• Met bi-weekly with Professor and other TAs, • Taught a weekly lab section, • Created materials to help students review, • Assisted in the creation and revision of assignments, and • Graded student work and provided meaningful feedback.	
	<i>Research Assistant</i> University of Tennessee, Knoxville Educational Leadership and Policy Studies Department Advised by Dr. Karen Boyd	Jun 2019 - Aug 2020
	• Worked with a small team of students from different fields, • Lead the creation of various research websites, • Created an interactive history game on ARIS, • Collected and edited hundreds of hours of video and audio recordings, • Scanned and digitally remastered court documents, newspapers, and transcripts, and • Presented research at several events and conferences.	
Leadership	<i>Design Team Administrator</i> Educational Leadership and Policy Studies Advised by Dr. Karen Boyd	Jun 2020 - Aug 2020
	• Designed fully comprehensive remote research environment, • Collaborated with interdisciplinary group on a daily basis, • Documented progress in daily and weekly segments, • Created design documents and proposals for group presentation, • Presented prototyped game mechanics and dynamics.	
	<i>Computer Science Supplemental Instructor</i> University of Tennessee, Knoxville Student Success Center Advised by Dr. Jennifer Hewerdine	Aug 2019 - Jun 2020
	• Attended leadership and team-building training, • Regularly created review materials for Computer Science students, • Maintained consistent communication with hundreds of students, and • Led study groups twice a week with information relevant to course content.	
Service	University of Michigan CSE DEI Discussions, <i>Roundtable Moderator</i> University of Michigan AI Symposium, <i>Poster Chair</i> Xplore Engineering program for Middle Schoolers, <i>Program Presenter</i> Hart Strings, <i>Member and Student Leader</i> KYSO, <i>Orchestral Assistant</i> Saint John XXIII, <i>Violinist</i>	Oct 2023 Oct 2023 Jul 2023 Aug 2012 - Aug 2020 Aug 2010 - May 2018 Mar 2014 - Jun 2018

Garden Montessori School, Volunteer

May 2016 - Aug 2016

Publications

SmarCyPad: A Smart Seat Pad for Cycling Fitness Tracking Leveraging Low-cost Conductive Fabric Sensors
IMWUT. September 2023.

FOURST: A code generator for FFT-based fast stencil computations
IEEE ISPASS 2022. May 2022.

Exploring Learning Approaches for Ancient Greek Character Recognition with Citizen Science Data
17th IEEE eScience 2021. Sept 2021.

Posters

DeckFlow: A Card Game Interface for Exploring Generative Model Flows
IEEE Symposium on Visual Languages and Human-Centric Computing. Liverpool, UK. Sept 2024.

ACM Symposium on User Interface Software and Technology. San Francisco, CA. Oct 2023.
University of Michigan AI Symposium. Ann Arbor, MI. Oct 2023.

Rubikon: A Multimodal Tutor for 3D Physical Task Learning
Best Demo Award; University of Michigan AI Symposium. Ann Arbor. Nov 2022.

Improving Accessibility to FFT Stencil Computations
IACS DCD REU. Stony Brook University. Aug 2021.

Montgomery 1960: Using Technology to Teach Empathy and Perspective Taking
American Historical Association Annual Conference. NYC. Jan 2020.
EURēKA. Knoxville, TN. April 2020.

Improving the Empathetic Response of Academically Focused Students through Historical Gamification
UTK Discovery Day. Knoxville, TN. Aug 2020.

Awards and Grants

Best Demo Award, *UMich 2022 AI Symposium*,
Rackham Merit Fellowship, *UMich 2022*,
Excellence and Distinction in Undergraduate Research, *UTK 2022*,
NSF REU (1950042) Grant Participant, *Stony Brook University 2021*,
Gonzalez Family Outstanding Undergraduate Teaching Assistant, *UTK 2021*,
SURGE Grant Recipient, *UTK 2020*, and
Undergraduate Research Travel Grant, *UTK 2020*.

Relevant Coursework

University of Michigan, Ann Arbor

- COSC 583: Advanced Operating Systems. Fall 2023.
- INFO 612: Pervasive Interaction Design. Fall 2023.
- COSC 598: Ethics for AI and Robotics. Spring 2023.
- COSC 598: Human-AI Interaction & Systems. Spring 2023.
- COSC 592: AI Foundations. Fall 2022.
- COSC 593: HCI. Fall 2022.

University of Tennessee, Knoxville

- PHIL 395: Philosophical Foundations for Democracy; Spring 2022.
- COSC 402: Senior Design Practicum; Spring 2022.
- PHIL 371: Epistemology; Fall 2021.
- MATH 371: Numerical Algorithms; Fall 2021.
- COSC 493: Ubiquitous Computing; Fall 2021.
- COSC 401: Senior Design Theory; Fall 2021.
- COSC 340: Software Engineering; Fall 2021.
- PHIL 373: Philosophy of Mind; Spring 2021.
- MATH 499: Graph Theory; Spring 2021.
- COSC 493: RISC-V Visualization; Spring 2021.
- COSC 452: Computer Graphics; Spring 2021.
- COSC 361: Operating Systems; Spring 2021.
- PHIL 235: Formal Logic; Fall 2020.
- MATH 450: Number Theory; Fall 2020.
- ENGL 360: Technical and Professional Writing; Fall 2020.
- COSC 461: Compilers; Fall 2020.
- COSC 360: Systems Programming; Fall 2020.
- COSC 312: Algorithm Analysis and Automata; Fall 2020.
- PHIL 101: Introduction to Philosophy; Spring 2020.
- ECE 313: Probability and Random Variables; Spring 2020.
- COSC 494: Introduction to Quantum Information; Spring 2020.
- COSC 311: Discrete Structures; Spring 2020.
- COSC 302: Data Structures and Algorithms II; Spring 2020.
- MATH 231: Differential Equations I; Fall 2019.
- COSC 140: Data Structures and Algorithms I; Fall 2019.
- PHIL 244: Professional Responsibility; Summer 2019.
- COSC 130: Computer Organization; Summer 2019.
- MATH 247: Honors: Calculus III; Spring 2019.
- COSC 102: Introduction to Computer Science; Spring 2019.
- MATH 251: Matrix Algebra I; Fall 2018.
- MATH 307: Honors Introduction to Abstract Mathematics; Fall 2017.