Sarah Stec

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Canton, MI

Education · University of Michigan

Master of Science in Engineering in Computer Science   January 2024 - December 2024
GPA: 3.89/4.00
Course highlights: Randomness and Computation, Foundations of Artificial Intelligence, Systems for Generative AI

Bachelor of Engineering in Computer Science, Minor in Mathematics   August 2020 – December 2023
Summa Cum Laude | GPA: 3.82/4.00
Course highlights: Data Structures and Algorithms, Web Systems, UI Development, Cybersecurity, Differential Equations

Key Skills

Advanced: C++, C, Python	Passion for learning	Educational public speaking
Intermediate: React.js, Vue.js, JavaScript, SQL	Collaborative problem solving	Analytical thinking
	Pair Programming	Test-driven development

Relevant Experience

College of Engineering | University of Michigan   January 2022 – December 2024
Data Structures and Algorithms Teaching Assistant
- Aid student learning of fundamental data structures and algorithms in C++ for 950+ students by instructing weekly two-hour labs of 30+ students, providing weekly 1-on-1 office hours, and answering questions on online course discussion forum, receiving over 10,000 questions per semester

School of Information | University of Michigan   May 2024 – September 2024
Full Stack Developer · Internship
- Collaborate closely with the Michigan Public Health Integrated Center for Outbreak Analytics and Modeling (MICOM) on a $17.5 million project that graphically tracks state vaccination records
- Pair program, implement, and peer review key full stack features, including tables, charts, data processing scripts, and integration and unit tests using React.js and Python

Information and Technology Services | University of Michigan   May 2023 – August 2023
Full Stack Developer · Internship
- Designed and implemented a user-friendly web application enabling network engineers to facilitate customized wireless testing of WiFi networks via Vue.js, Node.js, and MongoDB
- Automated configuration file generation and custom script flexibility to provision tasks to 100+ Raspberry Pi computers via user interface

Dynamic Map Platform North America (formerly Ushr)   May 2022 – August 2022
Software Developer · Internship
- Designed and implemented an interactive data analysis dashboard for speed limit propagation algorithm, resulting in the correction of over 2,000 speed sign inconsistencies through detailed data analysis.
- Engineered automated test cases in Python to support test driven development of a data extraction tool

Projects

SignSavvy | Software for Accessibility Capstone
Web app that provides users with real-time translation of American Sign Language (ASL) using React.js and MediaPipe

SoundScholars | AI in Education Course
Cognitive tutor that teaches novices musical rhythms via learning pages and exercises via React.js, Python, and SQLite

LLM Inference Scheduling | Systems for GenAI Course
A novel scheduling algorithm for LLMs that combines Round-Robin (RR) and Shortest Job First (SJF) approaches to minimize latency and improve fairness.

Ask485? | Web Systems Course
A scalable, fully functional search engine pairing full-stack development with an inverted index of webpages using Python, React.js, and SQL