Ethan Perry

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EDUCATION

Wheaton College — Norton, MA

Bachelor of Arts in Computer Science, GPA 3.97/4 — *Aug. 2021 - May 2025*

Bachelor of Arts in Mathematics, GPA 3.96/4 — *Aug. 2021 - May 2025*

Relevant Courses: *Web Development, Data Structures, Algorithms, Object Oriented Programming, Machine Learning*

TECHNICAL SKILLS

Languages: C++, Javascript, C, Python, R, PHP, SQL, HTML, CSS, MIPS Assembly
Technologies: Node.js, Express, Typescript, MongoDB, RESTful API, mySQL, jQuery, Bootstrap
Tools: Git, GitHub, Bash, VS Code, CLion, RStudio, PyCharm, Excel, Mathematica

PROJECTS

Terrain Reconstruction Visualizer | *Javascript, HTML/CSS, jQuery, Plotly.js, C++*

- Developed a web-based site for Digital Elevation Model (DEM) visualization
- Implemented dynamic user interaction for effective interface features with Javascript and Bootstrap
- Integrated Inverse Distance Weighting (IDW) as a means of interpolating incomplete or sparse input data files
- Extracted and processed additonal sample elevation data using qGIS software for enhanced user experience

Student Marketplace App | *Node.js, Express, MongoDB, Typescript, RESTful API*

- Engineered application back-end infrastructure using Node.js and Express, building robust APIs to facilitate seamless communication between buyers and sellers, ensuring smooth platform functionality
- Integrated MongoDB for database management while implementing secure data handling practices with Json Web Tokens to maintain integrity and support efficient storage and retrieval of product information
- Strategically integrated Gemini AI API to parse user uploaded images and auto-fill the form data for their listing
- Collaborated using Agile methodologies, conducting bi-weekly sprint cycles, regular code reviews with Git version control, and progress tracking meetings to ensure timely delivery of tangible project milestones

Full-Stack Photobook Emulator | *Javascript, PHP, mySQL, Bootstrap, HTML/CSS*

- Collaborated with a peer programmer to design and deploy a simulated photo album creation webpage, utilizing HTML5, JavaScript, and PHP to deliver a seamless user experience, demonstrating proficiency in full-stack development
- Developed a full-stack system to save and restore user progress data, leveraging relational databases (SQL) and JavaScript cookies, showcasing expertise in data persistence and efficient data management
- Engineered optimized database architecture to enable fast data retrieval, reducing buffering times and improving user experience, aligning with the need for efficient software design and development

EXPERIENCE

Lead Geospatial Interpolation Researcher — May. 2024 – Aug. 2024

Wheaton College — *Norton, MA*

- Guided academic research pathway by reviewing contemporary academic articles to cleary define my research niche
- Explored the application of several machine learning techniques, such as Random Forest, XGBoosting, and Neural Networks, to develop a terrain reconstruction algorithm
- Gained valuable academic experience which translated into applicable programming skills to extend GIS research
- Collaborated with my research advisor to create a robust and productive academic environment to achieve collective goals

Computer Science and Mathematics Peer Tutor — Jan. 2022 – Present

Wheaton College — *Norton, MA*

- Providing customized instruction to students in eight different math and computer science courses
- Collaborate with fellow tutors to organize groups of students into dynamic study sessions
- Manage an active log summarizing and reflecting on each tutoring session to improve communicative ability
- Actively participating in monthly workshops to incorporate valuable feedback in active listening and effective communication