# 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 and Tools**: Node.js, Express, RESTful API, mySQL, jQuery, Plotly.js, Bootstrap, Excel
**Developer Tools**: Git, GitHub, Bash, VS Code, CLion, RStudio, PyCharm

## 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

**Full-Stack Photobook Emulator** | *Javascript, PHP, mySQL, Bootstrap, HTML/CSS*
- Worked closely with a peer programmer to develop a simulated photo album creation webpage
- Designed splash page for secure user login and protect their privately stored data
- Created a full stack system to preserve and restore progress data by using cookies and relational databases
- Organized team meetings to synchronize project progress and team cohesion

**Predictive Fitness Model** | *R, Statistics, Random Forest, LDA, Polytomous Regerssion*
- Developed and fully trained a predictive model that accurately predicts a subject's fitness level based on respective features
- Implemented various machine learning algorithms such as neural networks, random forests, linear discriminant analysis, and multiple logistic regression
- Organized a team research objective, carefully cleaned our data set, and implemented efficient R code to achieve our collaborative groups research objectives
- Distilled our methods and findings to a concise and deliverable presentation to our class

## 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