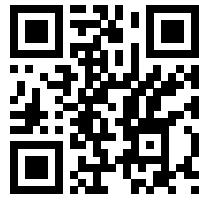


# Maguire McMahan

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Portfolio

## Education

### Virginia Tech

*Bachelor of Science in Industrial & Systems Engineering*

*Fall '20 - Spring '25*

- GPA: 3.2 — Major GPA: 3.8 — Dean's List: Spring & Fall '23, Spring '24
- Minors in Computer Science & Human-Computer Interaction

### Codecademy

*Front-End Engineering Career Course & Certification*

*Summer '23*

- Completed a 350-hour program covering **HTML, CSS, Javascript, React, and Git**

## Experience

### Walmart

*Product Management Intern*

*Summer '24*

- Spearheaded the creation of five cross-functional products by developing comprehensive PRDs, JIRA Epics, KPIs, and roadmaps, **resulting in over \$400,000 in annual cost reduction** within the realty supply chain network.
- Identified key areas of productivity loss, leading to the delivery of **4 additional products outside the single assigned project**, which further streamlined operations.
- Collaborated with stakeholders across engineering, design, and business teams to align product vision and execution.

### Virginia Tech

*Undergraduate Researcher - Optimization*

*Spring '24 & Fall '24*

- Engineered four optimization models and visualizations using **Python** and Gurobi to **reduce invasive species spread by 15%** across Minnesota lakes through game-theory-based cooperative strategies.
- Presented findings to academic and industry experts, **contributing to policy recommendations** that could save ecosystems.

*Undergraduate Researcher - UI/UX*

*Fall '24*

- Spearheading UX research through **agile methodologies** on a production planning simulation game used by 200+ students annually to improve usability measured through heuristic testing.
- Leading a team of 5 undergraduate students on the design team along with personally undertaking the entire re-development process of the **single-page application**.

*Assistant Book Author & Editor*

*Spring '24*

- Developed over ten illustrative problems in **LaTeX** with corresponding Python code for a technical book on Optimization, clarifying complex concepts and enhancing reader comprehension.
- Refactored 10+ examples into standalone files, reducing editing time and streamlining the review process.

### Scale A.I.

*Code Categorizer & Evaluator*

*Summer '23*

- Evaluated and categorized **1,000+ prompts and responses**, accelerating the training of large language models.

### Rugged Organics

*Website Development Team Lead*

*Fall '22-'23*

- Led a cross-functional team of seven interns in full-stack development, **reducing site load times by 72%**.
- Spearheaded site redesign and redevelopment to improve branding, resulting in improved click-through rates.

## Personal Projects

### Plentyfolios — Fullstack Collection of Portfolios

*Frontend: Next.js, Tailwind — Backend: Vercel Postgres DB*

*Spring '24*

- Developed and deployed a centralized resource for portfolio websites using **Next.js**.
- Designed data storage with Vercel Database, **allowing for real-time updates** and expansion of the portfolio collection.

### PoolAI — Neural Network Billiards Game

*Python, Tensorflow*

*Spring '24*

- Created a billiards simulation with PyGame to generate training data, **increasing model accuracy from 0% to 60%**.
- Trained neural networks using Tensorflow, **boosting predictive accuracy for shot angles and magnitudes**.