




ZAVEN RANUM

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Summary

Computer Science student with proven experience building full stack applications and data driven models. Recognized for strong problem solving, adaptability, and technical precision from both software and aerospace domains. Seeking internships to apply engineering and software skills to impactful projects

Education

Metropolitan State University of Denver

Expected Graduation: May 2027

Bachelor of Science in Computer Science

Denver, CO

- Relevant Courses: Data Structures and Algorithms, Software Development Methods and Tools, Calculus, Statistics, Introduction to Computer Systems, Fundamentals of CS, Concepts of Mathematics, Writing, English, Presentational Speaking

Technical Skills

Languages: Java, Python, JavaScript, SQL, HTML, CSS

Frameworks/Libraries: React, Tailwind CSS, Express.js, Prisma

Tools: AWS, PostgreSQL, Docker, Firebase Auth, Git/GitHub, REST APIs

Projects

Space Debris Risk Model

Python | FastAPI | Next.js | Plotly

- Developed a full-stack application to simulate and visualize close-approach events of orbital debris.
- Built a Python FastAPI backend to generate and serve event and heatmap data via RESTful APIs.
- Created an interactive 3D web frontend using Next.js and Plotly for real-time visualization of space debris encounters.

Fitness Tracking App

Javascript | React | Node.js | SQL

- Full-stack fitness dashboard that allows users to log food and track daily calorie and macronutrient intake.
- Designed and connected a PostgreSQL database using Docker and pgAdmin, with backend routes powered by Express.js and Prisma ORM.

Work Experience

Amazon

Aug 2024 – Present

Driver

Denver, CO

- Recognized with Top Driver Award for ranking among top performers across safety, efficiency, and customer satisfaction metrics
- Resolved customer delivery issues, improving satisfaction scores

Ouroboros Space and Defense

Nov 2023 – Aug 2024

CNC Programmer/Machinist

Denver, CO

- Created CAM programs that reduced machining cycle times by 25%, showcasing transferable skills in automation and optimization
- Programmed and operated CNC/Lathe machines to manufacture aerospace components with < 1% tolerance error
- Used computer systems to optimize and monitor production

S&T Machining Lab

Jun 2021 – Nov 2023

CNC Machinist

Denver, CO

- Developed and optimized toolpath programs, increasing production efficiency by 20%.
- Monitored and adjusted CNC/Lathe machines for efficiency and accuracy