

Alex G Nuñez-Carrasquillo

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EDUCATION

University of Michigan, Ann Arbor, MI

3.631 GPA

B.S.E. in Computer Science, Minor in Mathematics

May 2025

Technical Coursework: Operating Systems, Software Engineering, Web Systems, Database Management Systems, Computer Security, Mobile App Development, Machine Learning, Data Structures & Algorithms, Statistics & Computational Data Analysis

SKILLS

Programming Languages: Java, Swift, Python, C/C++, C#, JavaScript, MATLAB

Tools & Frameworks: React, Next.js, FastAPI, Docker, Git, GitHub, PostgreSQL, MongoDB, AWS (S3, EC2, Lambda, CodePipeline, DynamoDB), HTML, TailwindCSS, VSCode

Certifications: AWS Certified Cloud Practitioner

Languages: English, Spanish

WORK EXPERIENCE

ZEUS Laser Facility - University of Michigan

Ann Arbor, MI

Programmer I

June 2025 - Present

- Scoping and leading development of a virtual reality tour for the ZEUS Laser Facility, designed to support on-boarding and outreach for 100+ users
- Engineering reusable Unity-based infrastructure for 3D navigation, scene transitions, and optimized model loading, for deployment on WebGL and VR
- Collaborating with researchers, lab staff, and outreach teams to gather requirements, refine UX, and ensure scientific accuracy

Transit Services - University of Michigan

Ann Arbor, MI

Motor Vehicle Operator

August 2023 – May 2025

- Delivered reliable, safe, and efficient transportation for 100+ students and faculty using the SafeRide service
- Collaborated with dispatch teams, optimizing route efficiency to achieve a 50% reduction in transit times, enhancing service for 100+ daily users, and contributing to a 28% increase in ridership satisfaction

Lahann Laboratory - University of Michigan

Ann Arbor, MI

Undergraduate Research Assistant

May 2021 - August 2021

- Deployed and refined a computer vision pipeline for analyzing mechanical and physical properties of 100+ prototypes using MATLAB's Image Processing Toolbox
- Developed the engineering and characterization of auxetic polymer scaffolds with a RegenHu bioprinter, successfully producing 50+ prototypes for artificial heart tissue research
- Designed several millimeter-scale auxetic polymer scaffolds for seeding artificial heart tissue, which expanded by over 25% when stretched

PROJECT EXPERIENCE

Micro-Transit and Rideshare Platform | Rideshare system for optimizing student transportation

React, Swift, Flask, Python, Google Route Optimization API, Google Gemini API, AWS Lightsail

- Built a micro-transit system with an iOS rider app, web staff dashboard, and Flask backend for real-time booking and routing, improving wait times in simulations by over 57%
- Managed a team of six developers, coordinating Agile sprints, defining project scope, designing system architecture, and managing deliverables to launch a functional MVP in two months

AWS Clone | Full-stack solution for emulating cloud services on local hardware

React, NextJS, Python, FastAPI, Docker, QEMU/KVM

- Developed a modular AWS clone supporting S3-style storage, Lambda-like functions, and EC2-style virtual machine management
- Deployed services with Docker and created a React dashboard for managing resources