

# Ramon McDargh-Mitchell

Full-Stack Software Engineer & ML Developer

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## Education

University of California San Diego (UCSD)

Expected June 2027

B.S. Cognitive Science, Machine Learning & AI Specialization, Minor: Computer Science

GPA: 3.5

**Relevant Coursework:** Data Structures, Algorithms, Machine Learning, Neural Networks, Statistical Analysis

## Technical Skills

**Core Technologies:** Next.js 15, React 19, TypeScript, Python, C++, Node.js

**Backend & Databases:** MySQL, Prisma ORM, Sanity CMS, REST APIs, GraphQL

**Cloud & DevOps:** Vercel, Oracle Cloud, AWS S3, Upstash Redis, Sentry

**ML & AI:** YOLOv8, OpenCV, OpenAI Whisper, Boosting, SVM, Neural Networks, GAMS, PCAS, Pandas, Numpy

**Game Dev & VR:** Unreal Engine 5, Virtual Reality Development, HCI, Simulation

**Tools & Integrations:** Stripe, NextAuth.js, Printful API, Resend API, Git, Docker, CI/CD, Webhook Integration

## Professional Experience

Qualcomm Institute at UCSD | *VR Research Intern*

Fall 2025 - Present

- Developing AI-powered virtual reality avatars using Unreal Engine 5 for educational classrooms and museums
- Contributing AI object detection to VR SmartClassroom and NanoVerseVR for guided tutorials and nanoscale exploration
- Collaborating with faculty leaders on immersive technology research blending game development, ML, and HCI

Clutch Studio | *Founder & Full-Stack Developer*

Spring 2025 - Present

- Founded web development company serving real clients with full-stack solutions using Next.js 15, React 19, TypeScript
- Built comprehensive business platforms with admin dashboards, project management, payment processing, real-time data sync
- Deployed production applications with cloud infrastructure, monitoring, and CI/CD pipelines gaining me 3+ clients

In-N-Out Burger | *Food Service*

Spring 2021 - Fall 2025

- Prepared, cooked, and serviced food for customers with exceptional teamwork and customer service

## Key Projects

ColorStack @ UCSD - Community Platform

Fall 2025 | [Visit Site](#)

- Designed and built first website for 2-year-old chapter serving 50+ Black and Hispanic CS students using Next.js 16, React 19
- Implemented event calendar, member directory, and board structure improving operations and online presence

Digital Revolution - Nonprofit E-commerce Platform

Summer 2025 | [Visit Site](#)

- Built full-stack nonprofit platform using Next.js 15 to expand STEM education access to underprivileged communities
- Implemented e-commerce with Stripe payments, Printful API fulfillment, NextAuth.js v5 authentication, donation system

Golden Eagle Estates - Business Platform

Spring 2025 | [Visit Site](#)

- Built full-stack business management platform for construction company with admin dashboard and project tracking
- Integrated AWS S3, JWT authentication, rate limiting, and comprehensive customer management system
- Gained 2x more clients from online presence and improved workflow.

Custom YOLOv8 Object Detection Model

Spring 2025 | [View Project](#)

- Trained domain-specific YOLOv8 model achieving 79.4% fitness score on 351 hand-labeled images
- Built complete ML pipeline: video recording, frame extraction, annotation, training, and deployment to detect personal objects

## Technical Achievements & Leadership

- **VR Research:** Integrating machine learning into immersive educational experiences at prestigious research institute
- **Nonprofit Technology:** Built comprehensive e-commerce platform supporting STEM education with 50% profit allocation
- **Payment Integration:** Implemented complex payment flows including subscriptions, webhooks, and order management
- **UCSD Table Tennis:** Key player securing 1st place for JV team, defeating UCLA
- **HSF Scholar:** Was awarded the prestigious HSF Scholar award for my academic excellence
- **Upperclassmen Excellence in Mathematics:** Selected by the mathematics faculty at El Dorado High School during my senior year for my passion and performance in math courses.