

# Zaeem Amin

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## EDUCATION

### University of California at San Diego

June 2026

B.S - Cognitive Science (Machine Learning & Neural Computation) | Minor in Computer Science

**Relevant Coursework:** Calculus 1-3, Linear Algebra, Introduction to Java, Data Structures and Algorithms, OS Systems and C, Introduction to Python, Discrete Mathematics, Statistics

## PROJECTS

### PokeMatcher | San Diego, CA

December 2024 - January 2025

- Engineered an iOS application with Swift and Core ML matching users to Pokémon through facial feature analysis, processing 100+ facial features and traits to succeed 98% detection
- Integrated a RESTful API system connected to PokeAPI database with over 1000 Pokémon type matching and machine learning-based recommendation engine, processing 50ms response time

### Website | San Diego, CA

October 2024 - Present

- Architected a portfolio website using React.js, HTML, and JavaScript with modern web practices through Vercel implementation while maintaining sub-2 second load times across all devices
- Executed a component-based architecture with Redux, custom hooks, and automated testing achieving 90% code coverage, while integrating CI/CD pipeline through GitHub Actions

### Rubik's Cube | San Diego, CA

June 2023 - August 2023

- Enhanced existing Java-based Rubik's cube simulator by utilizing CFOP method, advanced algorithms, reducing computation time by 75% and optimizing machine learning predictions
- Transforming cube mechanics with refined turn speed algorithm and customized movement patterns, reducing average solution steps from 100+ to 65 moves and increasing color neutrality

### Minesweeper | Greensboro, NC

July 2018 - August 2018

- Constructed a Java-based Minesweeper featuring recursive tile reveal algorithm, efficient mine detection system using 2D arrays with O(1) lookup time, and adaptive difficulty scaling
- Engineered a comprehensive game management system with MongoDB integration for persistent storage, real-time analytics tracking player patterns, and custom sprite rendering engine

## EXPERIENCE

### Triad Tutoring | Greensboro, NC

August 2020 - May 2021

#### Founder

- Co-founded and managed a 15 person virtual team for a tutoring platform serving 50+ students across elementary, middle, and high school levels during quarantine by providing a learning space
- Orchestrated a structured curriculum development coordinating 8 tutors and school administrators, driving 15% grade improvement through data-driven teaching methods

### ICNA Helping Hands | Greensboro, NC

June 2018 - March 2020

#### Ambassador

- Coordinated with team of 20+ volunteers to organize and revolutionize aid distribution, with bi-weekly assessments and training volunteers in logistics, resulting in 30% faster distribution
- Pioneered and managed a \$50,000 budget allocation system through international partnerships and digital tracking enhancing efficiency by 40%, deploying provisions for 75+ families

## TECHNICAL SKILLS

**Programming:** Java, Python, C, Swift, HTML/CSS, JavaScript (React.js, Node.js), RESTful APIs

**ML & Tools:** Neural Networks, Computer Vision, Git, MacOS, Windows, Visual Studio, Linux

**Analysis:** Statistical Analysis, Project Management, Quantitative Analysis, SQL, MongoDB