

# MALCOLM RYU DYER

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## EDUCATION

### San José State University

San José, CA

B.S. Software Engineering — Expected May 2027

Enrolled Fall 2025

- Relevant Coursework: Data Structures and Algorithms, OO Programming, Computer Organization and Architecture

### De Anza College

Cupertino, CA

A.S. Computer Science — GPA 3.77

2022 – 2025

- Completed rigorous coursework to finish an associates degree while leading multiple applied software projects.

## PROFESSIONAL EXPERIENCE

### Mimic Ransomware Defense

Palo Alto, CA

Software Engineering Intern

Summer 2025

- Engineered a responsive React + TypeScript interface emphasizing UX and cybersecurity for enterprise-grade defense.
- Migrated CI/CD pipeline from Cypress to Playwright, cutting flaky tests rates by 40% and accelerating build verification.
- Resolved Ant Design (AntD) framework issues with UI/UX team by improving responsiveness and cross-browser stability.
- Implemented SSDLC practices to ensure encryption integrity, secure authentication flows, and threat-resilient frontend.

### La Casa Mia Restaurant

Santa Clara, CA

Server, Host, and Floor Manager

2022 – 2025

- Supervised front-of-house operations, coordinating staff rotations and table turns to maximize efficiency during peak hours.
- Trained and mentored new employees to maintain service quality and team communication under high-volume conditions.
- Learned excellent communication + people skills.

## PROJECTS

### ThreadSafe - Secure Messaging App — React, Python, MySQL

Fall 2025

- Developed a messaging system with end-to-end encryption, MFA, and JWT session management for secure authentication.
- Built RESTful APIs and key-rotation protocols ensuring encrypted message transmission and data integrity across sessions.
- Established CI/CD testing pipelines and UML documentation to standardize team workflow and software maintenance.

### AI Interview Prep Buddy — React, TypeScript, Node.js, OpenAI API

Fall 2025

- Built an interactive interview practice platform simulating behavioral and technical interviews across configurable domains.
- Implemented voice-based practice using speech-to-text analysis to evaluate spoken responses alongside written answers.
- Applied real-time scoring, targeted feedback, and AI-driven improvement recommendations based on user responses.

### TrustScore Anti Phishing Extension — JavaScript, Browser APIs

Fall 2025

- Developed a browser extension analyzing page content, URLs, and metadata to compute web risk scores for safe browsing.
- Implemented heuristic detection for malicious domains, credential harvesting patterns, and deceptive UI elements.
- Displayed trust indicators and contextual warnings to help users make safer security decisions in real time.

### Elevator Simulation System — Java, OOP, Multithreading

Spring 2025

- Implemented a multi-elevator simulation modeling request scheduling, direction logic, and passenger flow behavior.
- Applied object-oriented design to separate elevator control logic, request queues, and simulation state.
- Used concurrency primitives to handle simultaneous floor requests and realistic time-based execution.

### La Casa Mia Website — HTML, CSS, JavaScript

Summer 2024

- Designed and built a responsive, user-friendly website to improve the restaurant's online visibility and accessibility.
- Optimized page load speed and WCAG accessibility standards for consistent UX across desktop and mobile devices.

### Pokemon CSV Data Query System — Java, CSV

Fall 2025

- Built a menu-driven CLI program that loads and processes large data entries from CSV, supporting typed attribute search.
- Used TreeMap and TreeSet to enable range queries, top-N lookups, and efficient deduplicated storage for fast stat reporting.

### Portfolio Dashboard — React, TypeScript, Express.js, PostgreSQL, Docker

Spring 2025

- Built a full-stack portfolio dashboard to visualize personal projects, GitHub activity, and system metrics in real time.
- Developed RESTful APIs with Express.js and PostgreSQL for authenticated data retrieval and persistent project storage.
- Containerized services with Docker and automated CI/CD deployment pipelines using GitHub Actions for seamless updates.

## TECHNICAL SKILLS

**Languages:** C/C++, Java, Go, JavaScript/TypeScript, Python, HTML/CSS, x86 Assembly, RISC-V, SQL, Bash, JSON, YAML, Zsh  
**Frameworks & Tools:** React, Git, GitHub, GitHub Actions, Docker, Linear, Playwright, Cypress, MongoDB, Figma, Node.js, PyTest