Rodrigo Ortiz

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EDUCATION

University of California, Berkeley - College of Engineering **Expected Graduation: May 2026**

Bachelor of Science, Electrical Engineering & Computer Science

- Cumulative GPA: 3.92/4.0
- Honors: EECS Honors Program, Rodriguez-Pastor Scholarship, HKN Honor Society, Tau Beta Pi, Dean's List
- Relevant Courses: Computer Security, Efficient Algorithms and Intractable Programs, Operating Systems and System Programming, Introduction to Machine Learning, Front-End Web Architecture, Optimization Models in Engineering

WORK EXPERIENCE

NTT DATA - Digital Experience Intern **May 2025 – August 2025**

- Developed a Project Management web application using Angular and Node.js, featuring an interactive task table (mat-table), analytics dashboard (Charts.js), and Gantt chart (ngx-gantt) for efficient project tracking.
- Built a RESTful backend using Java Spring Boot that integrated with Supabase and the Inter-American Development Bank (IDB) Open Data APIs to retrieve, process, and serve development-related data.
- Created an AI-driven chatbot using Azure OpenAI's GPT-4o mini model via the Azure OpenAI API, integrated with an MCP server to provide real-time project insights and generate dynamic charts based on IDB data.

Scotiabank - Systems Engineer Intern **May 2024 – August 2024**

- Wrote TypeScript-based Office Scripts to automate and synchronize financial reports across Excel workbooks and databases, enabling real-time data integration.
- Recovered $4,000 in cost-of-funds miscalculations by identifying and correcting formula and input errors in loan reports.
- Revamped the loan rate calculation system by replacing imprecise rounding with a linear interpolation algorithm, significantly improving financial margin accuracy.
- Developed internal tools that streamlined account management workflows

Mibanco, Credicorp - Cyber Security Intern **June 2023 – August 2023**

- Built a secure, dynamic login system using HTML, JavaScript, and CSS; improved UI/UX for internal tools.
- Implemented an authentication protocol in PHP, managing sessions, cookies, and admin privileges (create/delete user).
- Connected to a secure, encrypted SQL database to store and manage sensitive user data for the cybersecurity team.

GROUP PROJECTS & RESEARCH

Spotify Playlist Maker (Next.js, React, TypeScript) **January 2025 - May 2025**

- Developed a playlist manager with song search functionality via the Spotify API, using Next.js for routing and React for state management: https://rodrigo-bootcamp-playlist.vercel.app/
- Integrated Spotify API with Client Credentials Flow for secure authentication and optimized server-side data fetching.
- Utilized Tailwind CSS for responsive design and deployed on Vercel with production preview deployments.

Operating Systems Project (C, Pintos) **January 2025 - May 2025**

- Collaborated on implementing core OS functionality in the Pintos OS across process, threading, and file system layers.
- Contributed to system call handling, including argument passing, process control, and file operations for user programs.
- Co-developed a strict priority scheduler, efficient alarm clock, and user-level threads to support preemptive multitasking.
- Helped implement a buffer cache, extensible files, and nested subdirectories to optimize file system performance.

Berkeley Speech Group - BAIR **January 2025 - May 2025**

- Co-authored a paper on phonetic error detection using AI: https://eureka235.github.io
- Leveraged the CMU Pronouncing Dictionary (CMUdict) to enhance phoneme recognition accuracy.

Secure File Sharing System (Go) **February 2024 - April 2024**

- Designed and implemented eight core system functions to support secure, abstracted file sharing, including InitUser, GetUser, StoreFile, LoadFile, AppendToFile, CreateInvitation, AcceptInvitation, and RevokeUser.
- Applied advanced cryptographic techniques: symmetric/asymmetric encryption, digital signatures, HMAC, and key derivation (PBKDF, HKDF).
- Used Go's crypto library to build end-to-end data protection mechanisms.

Computational Game Theory R&D under Dr. Dan Garcia, UC Berkeley **January 2024 - December 2024**

- Co-led the front-end team for the GamesmanUni platform, improving UX by building a DrawLevel view in Vue.js.
- Led the integration of Four Square Tic Tac Toe into the GamesmanClassic engine, implemented in C.

SKILLS & INTERESTS

- **Skills:** Java, Python, JavaScript, TypeScript, C, Golang, Swift, PHP, Scheme, React, Next.js, React Native, Tailwind CSS, HTML, SQL, RISC-V, SIMD, Cybersecurity, Discrete Math, Linear Algebra, Multivariable Calculus
- **Clubs & Interests:** Web Development at Berkeley, Cubstart (iOS Development), Soccer, Spikeball, Nutrition
- **Languages:** Spanish: Fluent, English: Fluent, French: Elemental