Matteo Dall'Olmo

(213) 222-3378 | d.matteo@wustl.edu | matteodallolmo.github.io | linkedin.com/in/matteo-dallolmo

EDUCATION

Washington University in St. Louis, McKelvey School of Engineering — **St. Louis, MO**
Bachelor of Science – Computer Science, Second Major in Italian — *May 2026*

- Cumulative GPA: 3.85/4.0 | Engineering GPA: 4.0/4.0 | Dean's List all semesters
- Coursework: Intro to AI, Matrix Algebra, Object Oriented Programming, Data Structures & Algorithms, Computer Security

Harvard-Westlake School — **Los Angeles, CA**
May 2022

- Weighted GPA: 4.4/5.00 | SAT: 1580/1600
- Honors: Cum Laude Society Inductee, Dean's List for 4 years

SKILLS

- Languages: Go, Rust, Java, Python, C++, C#, C, Swift, TypeScript, JavaScript, HTML/CSS, SQL
- Frameworks & Libraries: React, Gin, Kratos, gRPC, SOAP, Node.js, SwiftUI, LangChain, OpenAI API
- Databases & Tools: Git, Docker, Postman, Supabase, Pinecone, Firebase, SoftHSM

WORK EXPERIENCE

Wells Fargo | Blockchain Team — **San Francisco, CA**
Software Engineering Intern — *June 2025 – Present*

- Architected and developed a full-stack POC for a custodial digital asset wallet, designing a core middleware service in Go (Kratos) & a dynamic front-end application with React to orchestrate transactions across a distributed backend infrastructure.
- Engineered integrations between the central middleware and a suite of backend services, including a remote gRPC blockchain service, a legacy SOAP/XML API for DDA accounts, and a remote Key Management Service (KMS).
- Implemented transaction lifecycle logic by interfacing with a real-time Policy Engine to enforce compliance rules (AML, transaction limits, whitelisting) and integrating with an Account Service using Multi-Party Computation (MPC) to reconstruct keys from distributed shares for signing.
- Researched and contrasted Cosmos SDK wallet patterns, analyzing non-custodial approaches (Keplr, Metamask) to validate the design of the enterprise-grade custodial signing flow utilizing a remote HSM.

Boondoggle AI — **San Francisco, CA (Remote)**
Software Engineering Intern — *June 2024 – August 2024*

- Integrated over a dozen APIs in JavaScript to support client requests and created workflow chains to handle user data, generate insights with LLMs and support natural-language querying of vector databases.
- Designed a spam filter comparing embeddings of user emails to a Pinecone database, refactored backend functions to minimize database & API calls and implemented an interactive UI component, decreasing longest loading time by 50%.

McKelvey School of Engineering — **St. Louis, MO**
Teaching Assistant – Object Oriented Programming — *August 2023 – Present*

- Led weekly office hours for over 160 students, assisted with coursework in C++ as well as answered questions about lecture topics online on public forum Piazza.
- Responsible for grading labs and exams while also attending weekly TA meetings to foster a strong learning environment.

OpenX — **Los Angeles, CA**
Software Engineering Intern — *June 2022 – August 2022*

- Created a graph-style data visualization model in Typescript, HTML, and CSS that showcased weight and frequency of transactions between buyers, publishers, demand-side and supply-side platforms.
- Managed the project's development lifecycle using Jira for task tracking and GitHub for version control, ensuring the delivery of a well-documented and stylistically consistent application.

PROJECTS

AI Technical Interview Simulator – Demo | Github Repo | JavaScript, React, Pinecone, Supabase, OpenAI
Software Developer

- Implemented Pinecone vector database to store embeddings of ~2000 common DSA questions and support querying of optimal problems based on the user's experience, the job description, and the specific company.
- Designed adjustable front-end UI supporting an in-site code compiler and a live text conversation with the interviewer.
- Utilized OpenAI's completion API and engineered customized context and prompts, mimicking a natural technical interview where the candidate and interviewer engage in constant dialogue to arrive at a solution.
- Developed customized interview reports & scores based on user data, the interview transcript, and code iterations. Graded on code correctness, space and time complexity, engagement with the interviewer, and clarity of candidate's thoughts.

Water Polo Statistics App – GitHub Repo | SwiftUI, Firebase, Xcode
Software Developer

- Designed an interface to record key metrics of shots and saves from opposing SoCal teams using SwiftUI, provided analytics of the shots and supported individual player and whole-team queries of shot/save data.
- Stored and read data using Firebase Firestore, and created admin and player accounts using Firebase Authentication.
- Published on the app store so teammates could review opponents' tendencies and find insights into their own playstyles.

PERSONAL NOTES

Activities & Interests: WashU Water Polo Captain, College radio show host, Jazz guitar, Language learning, and Catan