

Rory Hemmings Software Engineer

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Education:

University of California Los Angeles (Sep 2021-Jun 2025)

B.S., Computer Science and Engineering; **Cumulative GPA:** 3.971

Relevant Coursework: Data Structures and Algorithms, Software Construction, Operating Systems, Logic Design of Digital Systems, Computer Organization, Multivariable Calculus, Linear Algebra, Differential Equations

Work Experience:

Chief Technical Officer, Milkyway Delivery - Los Angeles, CA (Aug 2022-present)

- Laid groundwork for scalable infrastructure used to manage customers, delivery drivers, and deliveries.
- Built a web application to automate process of delivery requests.

Lead Software Engineer, UCLA Mock Trial - Los Angeles, CA (Jul 2022-present)

- Designed and built a scalable cost-efficient web platform to store and manage all videos, documents, contacts, and resources for the mock trial team
- Wrote several scripts to centralize ~5 terabytes of videos and documents in the cloud
- Created search engine to query videos by transcriptions generated via machine learning

Cyber Officer, ACM at UCLA - Los Angeles, CA (Nov 2021-present)

- Hosted weekly education workshops on a variety of cybersecurity topics
- Programmed backend of a new CTF Platform for major upcoming CTF competitions
- Competed for PBR, UCLA's biggest competitive cybersecurity CTF team

Front Desk Staff, Stronghold Climbing Gym - Los Angeles, CA (Jun 2022-Sep 2022)

- Educated climbers and administered safety tests for top rope, lead climbing, and bouldering
- Utilized communication, decision making, teamwork, and time management skills

Web Development Intern, Pasadena Unified School District - Pasadena, CA (Jun 2020-Aug 2020)

- Developed and debugged Covid-19 response section of PUSD's website
- Helped inform over 18,000 students about Covid-19 procedures for the 2020/21 school year

Projects:

Vortex, Game Engine (C++, SFML, Box2D)

- Manages and updates up to 5000 entities and interactions per frame
- Data-oriented Entity-Component System greatly increases performance over traditional object-oriented approach
- Provides API to manage assets, states, user input, physics, and rendering

Unhinged, Dating App (C++)

- Utilizes Radix Tree data structure to store and efficiently search over 150,000 users
- Searches and matches users based on compatibility of interests in a fraction of a second

Sheet Music Transcriptions Platform (Javascript, Express.js, HTML, CSS, SQLite, Passport.js)

- Stores user uploaded pdfs and images along with descriptions and associated tags
- Supports fuzzy search, keyword search, likes, and comments on uploaded transcriptions
- Free and open source alternative to existing sites in order to foster community growth alongside learning

Skills:

Programming Languages: C++, C, Python, Java, Javascript, HTML, CSS, C#, Emacs Lisp, SQL

Tools, Frameworks, and Technologies: Linux, Git, shell, regex, Vim, Emacs, Unity React.js, Node.js, Express.js, REST APIs, AWS, PostgreSQL, MongoDB, SQLite, Data Management, Google APIs, Stripe API