Dan Firstenberg

1 Shields Ave • Davis, 95616 • dfirstenberg@ucdavis.edu • (425) 628-8929

Education

University of California, Davis <div align="right">Davis, CA</div>

Computer Science, College of Letters and Sciences <div align="right">Expected Graduation: Dec. 2025</div>

Relevant Coursework: Intro to Programming (Python), Programming (C/C++), Object-Oriented Programming (C++), Data Structures (Kotlin), Computer Architecture (Logisim), Algorithm Design & Analysis, AI (Python), Operating Systems (C++)

Projects

Mobile Application <div align="right">September 2022 – Present</div>

- Full-Stack Dev: Developed a social media mobile application using the Flutter framework and Dart language.
- Data Integration: Integrated Firebase, optimizing data structures for efficient mobile app performance.
- Data Retrieval: Implemented advanced searching algorithms and caching systems to enhance data retrieval processes.
- Authentication: Implemented secure user authentication with email verification.
- UI/UX: Designed intuitive and engaging user interfaces through research and application of UI/UX principles.
- Collaboration: Worked closely with a team of developers on both front-end and back-end design.
- User Feedback: Ran beta testing and incorporated feedback to improve application performance and usability.

Distributed File System <div align="right">May - June 2024</div>

- Local File System: Implemented on-disk storage, inode management, and hierarchical file structures.
- Distributed File System: Enabled multiple clients to access files simultaneously, inspired by Amazon S3.
- API Operations: Developed HTTP methods (GET, PUT, DELETE) to handle file and directory operations.
- Error Handling: Implemented transactional disk writes to ensure consistency and managed various error states (e.g., not found, insufficient storage, conflicts).
- Utilities: Created command-line tools for reading and debugging disk images, including file listings and metadata extraction.

Online Marketplace <div align="right">April 2024</div>

- Authentication: Implemented user registration, login, and secure authentication mechanisms.
- User Communication: Enabled messaging system for users to communicate with each other.
- User Dashboard: Created a personalized dashboard for users to manage their listed items and purchases.
- Form Handling: Developed and customized forms for item listings, user profiles, and transactions.

Experience

EdTech Startup <div align="right">Remote</div>

Software Engineer <div align="right">June 2024 - Present</div>

- Leading the development of a chess education coach application from the ground up.
- Managing project roadmap and timeline to ensure on-time delivery of milestones.
- Utilizing Stockfish (AI) alongside other evaluation metrics to devise a personalized chess coach.
- Collaborating with a cross-functional team of designers, developers, and chess experts to ensure a comprehensive and user-friendly application.

Skills & Interests

Technical: Python, Java, C++, C, Kotlin, Django, HTML, CSS, JavaScript, Flutter, Dart, Flutterflow, Assembly Language

Language: English (Native/Bilingual), Hebrew (Native/Bilingual)

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