

# Dan Firstenberg

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## EDUCATION

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University of California, Davis | B.S. in Computer Science | Minor in Statistics

December 2025

**Relevant Courses:** Programming (Python), Programming (C/C++), OOP (C++), Data Structures (Kotlin), Computer Architecture (Logisim), Algorithm Design & Analysis, AI (Python), Operating Systems (C++), Programming Languages (Java, Haskell, Erlang, Prolog), Probability for CS

## PROFESSIONAL EXPERIENCE

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ML Lab Assistant | Food Processing Laboratory, UC Davis

September 2024 - Present

- Spearheading the development of an imaging system to detect insect activity in agricultural products.
- Collaborating the enhancement and maintenance of ML models aimed at identifying various insect species using computer vision techniques.
- Amplifying the integration ML models in an AWS environment, utilizing AWS Lambda and S3 for efficient processing and storage of image data.
- Utilizing Python and JavaScript to optimize model performance and implementing Docker for model deployment.
- Technology Used: Python, JavaScript, AWS Lambda, AWS S3, Docker

Software Engineer Intern | Stealth EdTech Startup

June 2024 - September 2024

- Led the development of a chess education coach from the ground up.
- Managed project roadmap and timeline to ensure on-time delivery of milestones.
- Employed Stockfish AI alongside other evaluation metrics to devise a personalized chess experience.
- Coordinated with a cross-functional team of designers and developers to ensure a comprehensive and user-friendly application.
- Technology Used: Next.js, React, Material UI, TypeScript, Firebase

Creative Director | John Rusanov

March 2024 - Present

- Partnering with an influencer who has a combined 4.5+ million followers across social media platforms to create high quality content.
- Creating content concepts and scripts for videos that have amassed over 105,000,000 views combined.
- Collaborating with brands such as Dominos, Instagram, Meta Quest, Gordon Ramsay, Snapple, Qdoba, Chegg, Sour Patch Kids, C4 Energy, and more to ensure advertisements customized for specific marketing goals and tactics.

## ACADEMIC PROJECTS

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Distributed File System | Operating Systems [Github](#)

May 2024 - June 2024

- 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
- Utilities: Created command-line tools for reading and debugging disk images, including file listings & metadata extraction.
- Technology Used: C++, Web Server

Online Marketplace | Personal Project [Github](#)

June 2024 - July 2024

- 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.
- Technology Used: Django, Python

## LEADERSHIP EXPERIENCE & ACTIVITIES

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Director of Philanthropy | Alpha Epsilon Pi

September 2023 - Present

- Orchestrating over 100 student volunteers to raise \$10,000+ for various charities.
- Pioneering quarterly community service events leading to 160+ hours of student community service with the City of Davis.

TechSprint Innovators (Club) | Innovation Engineer, UC Davis

October 2024 - Present

- Brainstorming and conceptualizing creative project ideas, with a focus on identifying solutions that address real-life applications.
- Researching and implementing methods to bring projects to life, leveraging technical skills and experimentation to transform ideas into outcomes.

Board of Directors | Non-Profit, Hillel at Davis and Sacramento

July 2024 - Present

- Assisting in managing a \$500,000+ budget, allocating resources to enhance campus engagement while ensuring financial sustainability.
- Providing the organization with a student perspective of the current social and political climate of the UC Davis campus.

Davis Economics Collective (Club) | UC Davis

October 2024 - Present

- Engaging with the UC Davis Economics Department to build a professional community among undergraduates and faculty.
- Participating in professional development workshops to enhance career readiness.

## TECHNICAL SKILLS

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**Programming Languages/Frameworks:** Python, Java, C++, C, Kotlin, JavaScript, Django, HTML/CSS, FlutterFlow, Assembly, React, TypeScript

**Languages:** English (Native/Bilingual), Hebrew (Native/Bilingual)