

# Daniel J. Hagenlocker

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## EDUCATION

### Stanford University

Palo Alto, CA

*B.S. in Electrical Engineering / Computer Science* | **GPA: 4.0/4.0**

*Exp. Spring 2028*

Coursework: Machine Learning, Computer Organization and Systems, Programming Abstractions, Probabilistic Systems Analysis, Differential Equations, Multivariable Calculus, Linear Algebra and Matrix Theory

## EXPERIENCE

### Amazon Internship

Seattle, WA

*Software Development Engineer*

*Jun 2025 – Present*

- Developed a GenAI feature to automatically create dynamic background imagery for onsite digital content, significantly improving visual engagement and reducing manual content creation effort
- Managed complex continuous deployment pipelines, including end-to-end, acceptance, and A/B testing, ensuring reliable deployments of AI features and zero downtime across production environments

### Y Combinator

San Francisco, CA

*Summer Fellows Grant Recipient*

*Jun 2025 – Present*

- 20k grant + 90k in compute credits to build for a summer
- Developing an AI-powered desktop agent that assists music producers by intelligently recommending samples, generating sounds, and providing real-time and actionable production feedback

### ARMLab (Assistive Robotics and Manipulation Lab)

Stanford, CA

*Research Assistant*

*Dec 2024 – Present*

- Developed a mixed-reality interface for teleoperation of robotic arms, enabling intuitive control and faster data collection for imitation learning applications
- Implementing computer vision algorithms to track and map user gestures to robot arm movements in real time

### NASA Internship

Austin, TX

*ML Researcher*

*Jun 2022 – Aug 2022*

- Designed ML models with the long short-term memory RNN architecture in TensorFlow predicting water loss over time in critical California reservoirs, enhanced predictive accuracy by 75% compared to alternative methods
- Automated processing of 5 TB geospatial data from ICESat-2/LandSat-8, reducing manual effort by 90%; presented at AGU 2022 & NASA symposium.

### FIRST Robotics

Miami, FL

*President / Alumni Mentor (Team 5557)*

*Jan 2022 – Present*

- Led Java software development team of 10 students implementing computer vision-based real-time localization, sensor fusion via Kalman filters, dynamic path finding and following, and holonomic drivetrain optimization
- Oversaw mechanical and electrical design teams of 30 students, reducing critical system failures by 95+%

## PROJECTS

### RecycleRight / HomeGrown

*Jan 2022 – May 2024*

- Developed iOS apps for biogas digestion monitoring and waste contamination prevention, building interactive Augmented Reality experiences and training custom image classification models to identify recyclable materials
- Recognized at International entrepreneurship competitions for climate impact (Paradigm & Conrad Challenge)

### Inside the Box (Sustainable Packaging Startup)

*Dec 2020 – Aug 2021*

- Utility Patented packaging alternative for consumer electronics sourced from the agricultural waste stream
- Awards/Recognition: Utility Patent (US 20220324625), Dell Technologies Conrad Challenge – Winner, Blue Ocean Entrepreneurship Competition – 2nd Place

## SKILLS

**Languages:** Java, Python, TypeScript, HTML/CSS, Julia, SQL, Arduino, C/C++, Assembly

**Technologies:** TensorFlow, ReactJS, Tailwind, Flux, GitHub, Netlify, Firebase, Figma, Vite, Onshape, RISC-V

**Interests:** Web Development, Robotics, Computer Vision, ML, Environment, Data Science