

# Zach Bellay

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## Education

### SANTA CLARA UNIVERSITY

Master of Science, Computer Science and Engineering, June 2020

GPA: 3.5/4.0

Thesis: Deep Learning Methods for Efficient Image Coding

Bachelor of Science, Computer Science and Engineering, June 2019

GPA: 3.3/4.0

## Skills

**Languages:** Python, TypeScript, C/C++, HTML/CSS, Bash, SQL, Node.js**Frontend:** React, HTMX, Tailwind CSS, Redux, jQuery, Bootstrap**Backend:** Django, FastAPI, Flask, GraphQL, PostgreSQL, SQLite, Redis, Celery**Machine Learning:** Pytorch, OpenCV, Scikit-learn, Numpy**Misc:** Git, Docker, Docker Compose, GitHub Actions, AWS, Heroku, Digital Ocean, Netlify, Railway, Hetzner

## Experience

### RINSE (LAUNDRY DELIVERY STARTUP) | FULL STACK ENGINEER

Jun 2020 – Aug 2022

San Francisco, CA (Remote)

- Spearheaded B2B features for US Open 2023, driving significant six-figure revenue.
- Created SMS automation, boosting Google Reviews by 1.7 stars on average across all Rinse locations.
- Built a customer self-service claims form, slashing operational costs and boosting user satisfaction.
- Developed an internal bug reporting tool, cutting bug resolution time by 43% and enhancing bug detection.
- Enhanced team efficiency by integrating Python linter, formatter, and dependency manager.

### ONEPOINTONE (INDOOR VERTICAL FARMING STARTUP) | SOFTWARE ENGINEER

Jun 2020 – Aug 2022

San Jose, CA (Remote)

- Created a deep learning-based plant analysis service to detect seed germination rate, leaf size, and leaf class.
- Developed software to seamlessly stitch 780 warped close-up images into a single, detailed virtual camera view.
- Implemented GraphQL endpoints for efficient farm entity management and command execution.
- Built a RESTful CRUD backend with SQL for robust management of all farm imagery.

### FORD MOTOR COMPANY | SOFTWARE ENGINEERING INTERN

Jun 2019 - Sep 2019

Palo Alto, CA

- Prototyped air quality sensor network with custom built hardware. Built with Python, Flask, Docker, Kubernetes, Arduino.
- Compared Support Vector Machines (SVM) and Convolutional Neural Network (CNN) in traffic sign detection.

## Projects

### HNRESUMETOJOBS.COM | (JOB MATCHING WEBSITE FOR HACKER NEWS WHO'S HIRING)

March 2023 – June 2023

- Developed a website to match jobs seekers to job postings from Hacker News' monthly Who's Hiring post.
- Reached #1 on Hacker News for 16 hours. Received 11,000+ unique resumes to date, with 2,000+ unique visitors per month.
- Created using Python, Typescript, Tailwind CSS, React, Redux Toolkit, Django, PostgreSQL, Celery, Redis, and Docker Compose. Hosted on Hetzner.

### PODSCRIPTION.APP | (PODCAST TRANSCRIPTION WEBSITE)

Oct 2022 – Feb 2023

- Developed a website that utilizes OpenAI Whisper to transcribe podcasts automatically and enable users to search for keywords within podcasts.
- Created using Python, Typescript, Tailwind CSS, React, Django, PostgreSQL, Celery, Redis, and Docker Compose. Write up at [zachbellay.com/projects/podscription](https://zachbellay.com/projects/podscription).

### SCU-COURSE-EVALS.COM | (RATE MY PROFESSOR FOR SANTA CLARA UNIVERSITY)

Dec 2019 – Feb 2020

- Launched website for students to get course and professor reviews with 1,100+ monthly unique visitors.
- Scraped 25,000+ course evaluations from Santa Clara University's course evaluation system.
- Built with Python, Flask, Google OAuth, SQLite, Bootstrap, hosted on Digital Ocean using Docker. Write up at [zachbellay.com/projects/scu-course-evals](https://zachbellay.com/projects/scu-course-evals).