HANSON NGUYEN

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EDUCATION

University of California, Davis   **September 2021 – June 2025**
B.S. in Computer Engineering | GPA: 3.8/4.0   *Davis, CA*

EXPERIENCE

Dolby Laboratories   **September 2024 - Present**
Software Engineer Intern   *San Francisco, CA*

- Proposed alternative AWS S3 storage classes by comparing load performance with Node.js and Python to improve storage handling of streamed video content, projected to cut monthly service costs by **50%** and increase bandwidth by **12%**

Capital One   **June 2024 – August 2024**
Software Engineer Intern   *Richmond, VA*

- Spearheaded development of an in-house logging tool to migrate off a 3rd-party license, projected to save **$1M** annually
- Integrated a search query syntax for users to parse **100K+** logs through OpenSearch with Go, Next.js, and TypeScript
- Protected sensitive application logs to only authorized employees by implementing SSO protocol across the UI and API
- Implemented over **140** unit tests for the UI in Jest and the backend in Go, achieving more than **90%** code coverage

Symmetry Laser   **June 2023 – May 2024**
Software Engineer Intern   *Davis, CA*

- Engineered an efficient job scheduling algorithm and website to address late manufacturing jobs for laser-cut hypotubes using React, TypeScript, and Python, increasing the production rate by **30%** and improving overall efficiency
- Built **14+** analytical dashboards to highlight manufacturing info through Python APIs built with Flask and SQL queries
- Automated the filing process of COCs with a PyQT application, saving over **$10K** annually in labor costs
- Optimized unit tests with mocks and parallelization, enhancing code testing run times by over **90%**, from 3s to 0.2ms

EXTRACURRICULARS

AggieWorks   **January 2023 – Present**
Technical Product Manager   *Davis, CA*

- Directed over **10** software engineers and worked closely with product managers and designers to build applications for over **35K** students, including a roommate matching app, marketplace website, and local deals/businesses service
- Iterated on user research and design in an agile team to deliver modern MVPs based in React, TypeScript, and Go; gained over **2000** downloads and **400** daily active users for roommate matcher app at peak
- Added real-time messaging and matching features using PostgreSQL to send over **12K** messages and make **400** matches
- Deployed REST API and database of local deals service in a VPS with a CI/CD process using Traefik and Docker

PROJECTS

SmartNotes | *Python · OpenCV · Google Cloud Vision · OpenAI · Tkinter*

- Developed an application to convert students' handwritten notes to detailed digital notes with Python, OpenCV, and AI
- Created a user interface in Python and Tkinter to allow users to seamlessly upload images and showcase enhanced notes
- Leveraged OpenCV and image processing algorithms to improve photos, leading to a **33%** improvement in OCR outputs

TECHNICAL SKILLS/CERTIFICATIONS

Languages: Python, TypeScript, JavaScript, Go, SQL, C++, C, HTML, CSS
Libraries/Frameworks: React/React Native, Next.js, Node.js, Express.js, Vue.js, Tailwind, Sass
Databases/Cloud: PostgreSQL, MySQL, SQLite, MongoDB, Firebase, Redis, AWS (EC2, Lambda, S3, DynamoDB)
Developer Tools: Git, Github Actions, Docker, Jenkins, Traefik, Bash, Linux
Certifications: AWS Certified Cloud Practitioner