

Nathan Huey

Software Engineer

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Experience

University of California, Irvine

Bachelor of Science, Computer Science – GPA 4.0

Irvine, CA

Expected Grad - 2024

Coursework: Data Structures, Algorithms, SQL Databases, Systems, Machine Learning, Programming Languages, Linear Algebra, Discrete Mathematics

Skills

Languages – Python, SQL, Java, C++, JavaScript,

Frameworks/Libraries – FastAPI, Next.js, React

Tools – Unix, Docker, Git, Github, Bazel

Experience

Software Engineer Intern – Digital Biology

SEP 2023 – PRESENT

Python, Bazel, Unix, SQL, DuckDB

Watertown, MA

- Created application to store data from external SQL database into a regularly updating custom file system which allows for easily accessible and queryable data for scientific analysis
- Refactored and redesigned python module used to create closed-loop microscopy pipelines which increased codebase scalability and maintainability while enhancing accessibility and ease of use for scientists
- Vendored packages Pytorch and Cellpose into the Digital Biology monorepo, allowing a team of 20+ scientists to better analyze cell segmentation

Software Engineer Intern – PipeIQ

JULY 2023 – AUG 2023

Python, AWS, PostgreSQL, FastAPI, Docker

San Francisco, CA

- Engineered and launched an emailing system leveraging generative AI technology to deliver targeted and personalized sales emails to 100+ potential customers
- Collaborated with teams and product managers in an agile environment to develop scalable and efficient REST API endpoints using AWS Lambda
- Spearheaded data aggregation system through multiple third-party integrations, culminating in the collection of valuable insight across 200+ attributes

Tech Organizer - Hack at UCI

NOV 2022 – PRESENT

Python, FastAPI, MongoDB, TypeScript, Next.js, Tailwind CSS

University of California, Irvine

- Developed API routes for a convenient and streamlined application process on hackuci.com, used by 400+ applicants
- Collaborated with UI/UX designers to develop an application portal, enhancing user experience for hackers through enabling efficient application management and review

Undergraduate Researcher – Shi Labs

MAY 2023 – OCT 2023

Python, PyQt5, Numpy, ctypes,

University of California, Irvine

- Adapted pre-existing software to integrate with the microscope at Shi Labs, ensuring compatibility and functionality
- Collaborated with a dedicated research team to enhance the accuracy of cellular imaging at the molecular level

Projects

Shareloft (shareloft.com) - A private community/platform for thousands of retail investors hosted by Rob Mauer

Python, Django, TypeScript, Next.js, React, ChakraUI, Axios, PostgreSQL, Prometheus, Grafana, Docker

- Implemented API for creating and managing a collective community event calendar used by 100+ users
- Developed a reputation system that awards users for their contributions to discussions and forums
- Created 30+ unit tests for back-end API while practicing test-driven development, systematically eliminating errors and bugs

WordleBot (wordlebot.nhuey.com) - A full-stack web application designed to accurately guess the daily Wordle

Python, Django, TypeScript, Next.js, React, ChakraUI, Axios, Docker

- Created a full-stack web application enabling users to interactively solve the daily Wordle or assess the bot's proficiency with user-defined 5-letter word
- Wordlebot, utilizing evaluations calculated according to positional letter frequency, achieves an 89% accuracy in predicting daily Wordle while only requiring an average of 4.3 guesses