# Nathan Huey

Data | Machine Learning | Infrastructure

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## Education

**University of California, Los Angeles**                          Los Angeles, CA
*Master of Science, Computer Science*                          *December 2025*
Coursework: Large-Scale Machine Learning, Reinforcement Learning, Big Data Systems

**University of California, Irvine**                          Irvine, CA
*Bachelor of Science, Computer Science – GPA 3.985 (top 4% of class)*                          *June 2024*
Coursework: Data Structures, Algorithms, SQL Databases, NoSQL Databases, Systems, Machine Learning, Linear Algebra, Discrete Mathematics, Multivariable Calculus

## Skills

Languages – Python, SQL, Go, Bash, C, C++
Frameworks/Libraries – Dagster, DuckDB, Pandas, Numpy, Pydantic, FastAPI
Tools – Unix, Linux, Bazel, Docker, Git, Github

## Experience

**Software Engineering Intern – Digital Biology**                          *SEP 2023 – MAY 2025*
*Python, Bazel, Dagster, SQL, Pandas, DuckDB, Linux*                          *Watertown, MA*
- Integrated and automated fully productionized sequencing pipeline into data orchestration tool Dagster, which led to a more robust, reliable, and visible data pipeline
- Spearheaded building an application to auto-generate configuration files needed for sequencing and to automate the main data pipeline, saving a team of scientists and data scientists 3-5 hours per week
- Created software to constantly mirror external database within the company's local file system, which later became the entry point for all programmatic access of that data for the entire company
- Designed and implemented a tool that is durable, scalable, normalized, and seamlessly integrable (~14 lines of code) to create snapshots, which was used to backup critical data locally and to the cloud

**Software Engineering Intern – PipeIQ**                          *JULY 2023 – AUG 2023*
*Python, PostgreSQL, AWS, FastAPI, Docker*                          *San Francisco, CA*
- Designed, developed, and deployed a generative AI pipeline using large-scale LLMs which delivered targeted and personalized sales emails to 100+ potential customers
- Collaborated with front-end engineers and product managers to consistently deliver scalable and efficient REST API endpoints using AWS Lambda
- Aided effort to create a data aggregation system, culminating in the collection of valuable insight across 200+ attributes for each potential customer

**Tech Organizer - Hack at UCI**                          *NOV 2022 – JUNE 2024*
*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 – SEP 2023*
*Python, PyQt5, Numpy*                          *University of California, Irvine*
- Contributed to adapting and customizing pre-existing software to seamlessly integrate with the specific microscope at Shi Labs, ensuring compatibility and functionality

## Projects

**WordleBot** (wordlebot.nhuey.com) - A full-stack web application designed to guess the daily Wordle accurately
*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 the daily Wordle while only requiring an average of 4.3 guesses