

Kris Sowattanangkul

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EDUCATION

University of California Irvine

Irvine, CA

B.S., Computer Science - 3.8 GPA (Dean's Honor Roll)

Expected June 2025

Relevant Coursework: Object Oriented Programming, Data Structures & Algorithms, Machine Learning and Data Mining

SKILLS

Programming Languages: C++, Python, JavaScript, HTML, CSS, Java, SQL, MATLAB, ASM, Bash

Libraries/Frameworks: React, NumPy, pandas, Beautiful Soup, Matplotlib, seaborn, scikit-learn, PyTorch, SQLite

Technologies: Google Test (gtest), pytest, Git, AWS, GitHub, Jira, VSCode, PyCharm (IntelliJ), Linux

EXPERIENCE

Research Software Engineer Intern

June 2023 - August 2023

Princeton University

Princeton, NJ

- Developed ASPIRE, a computational CryoEM image processing framework for particle reconstruction pipelines
- Parameterized 30% of **Continuous Integration** test suite and reconstruction algorithm with **pytest fixtures & unit tests**
- Optimized simulation performance in distributed computations by 40% by implementing image bandpass metrics and **leveraging caching** (dynamic calculation)
- Created and automated CryoEM micrograph simulations, used by 10+ researchers from MIT, Princeton, and Tel Aviv
- Wrote public-facing, open-source API documentation and docstrings by generating HTML with Sphinx

Frontend Web Developer and Graphic Designer

February 2023 - Present

UC Irvine Transportation & Distribution Services

Irvine, CA

- Developed, designed, and maintained UCI Bike website (bike.uci.edu) with HTML, CSS, and WordPress
- Increased engagement by 30%** among 35,000 students by creating graphics and maps with Adobe AE/PS/ID

Data Engineer Intern

July 2022 - August 2022

Arlite Technology

Los Angeles, CA

- Developed and improved **data visualization** software that utilized ML Engineers' models and parameters to create an interface for clients to input their own data to **predict growth trends**
- Optimized feature selection and fit of engineers' models by **implementing L1/L2 regularization and dropout**
- Worked in an **Agile environment**, participating in daily stand-up meetings and bi-weekly sprint planning sessions

PROJECTS

Mitski Lyrics Twitter Bot | Python, JavaScript, AWS Glue, RESTful APIs

- Developed a bot to analyze lyrical tweets and respond with song title using the **Twitter and Genius APIs**
- Amassed ~3 followers per day with 50-100 impressions per song tweet
- Automated tweets by **implementing cron expressions** (Unix utility) through **AWS Glue**
- Deployed the script on Raspberry Pi, **reducing automation costs by 100% and automation speed by 80%**

Thai Spot Cultural Website | JavaScript, React, HTML, CSS, Python, RESTful APIs

- Designed a website that allows users to search for Thai restaurants/places (Thai community's Yelp) with **React**
- Integrated **Google Maps API** and Leaflet to display ~10,000 Thai locations with informational markers and achieved 93% accuracy in location search through **asynchronous Fetch API queries**
- Scraped and indexed ~5,000 restaurants from 7 online directories using a **Beautiful Soup** script

EXTRACURRICULARS

UC Irvine Dragon Boat Race Team, Lead actor for Thai Cultural Association play, competitive Pickleball player & ambassador