

Yuhi Tanaka

yuhi@engineering.upenn.edu | [linkedin.com/in/yuhitanaka](https://www.linkedin.com/in/yuhitanaka) | github.com/7uhi

EDUCATION

University of Pennsylvania

Master of Applied Science in Computer Science

- **Coursework:** Intro to Software Development, Computer Systems, Discrete Math

Philadelphia, PA

Expected May 2028

Soka University of America

Bachelor of Arts in Liberal Arts, Concentration in Life Sciences (GPA: 3.87)

- **Coursework:** Intro to Computer Science, Linear Algebra, Network Science, Calculus I–III, Probability & Statistics

Aliso Viejo, CA

Aug. 2022 – May 2026

SKILLS & CERTIFICATIONS

Languages: Python, C++, Java, JavaScript, HTML/CSS, R

Frameworks & Libraries: scikit-learn, pandas, NumPy, Matplotlib, RDKit

Developer Tools: Git, GitHub, VS Code, GitHub Copilot, Cursor, Claude Code, Power BI, SPSS, Microsoft Office Suite

Foreign Languages: English (Native), Japanese (Native), French (Intermediate)

Certifications: Google IT Support Specialization - Coursera (July 2024), Foundations of AI Engineering - CodePath (May 2026)

PROJECTS

Collaborative Travel Planner | *Next.js, React, TypeScript, PostgreSQL, Prisma, Auth.js, Tailwind CSS* 2026

- Built a full-stack collaborative travel-planning application with shared itineraries, availability polling, invite-based collaboration, travel preferences, and Splitwise-style group expenses
- Built a PostgreSQL backend with Prisma and React Server Actions; implemented Google OAuth authentication with Auth.js and role-based authorization for owners, editors, and viewers
- Developed expense-splitting and group-consensus algorithms, guaranteeing exact monetary splits while simplifying group debts to at most n-1 payments and aggregating member travel preferences

Buddhist Center TV Display | *JavaScript, HTML/CSS, Playwright, GitHub Actions, REST APIs, GitHub Pages* 2026

- Built and deployed a web display for the Orange County Buddhist Center, replacing a hard-to-read calendar with live events and schedules for a community receiving 600+ monthly visitors
- Developed a Playwright scraping pipeline that converts calendar data into structured JSON, handles multi-day events and filtering, and refreshes a rolling 14-day dataset 3× daily through GitHub Actions
- Designed resilient frontend behavior with REST API integration, localStorage fallbacks, automatic data refreshes, and adaptive layouts supporting 8+ simultaneous events on 1080p displays

Quantifying Lewis Acidity: ML & Statistical Analysis | *Python, scikit-learn* Sep. 2025 – May 2026

- Developed and optimized machine learning models (scikit-learn) to predict Lewis base affinities toward BCl_3 from DFT-calculated molecular descriptors
- Built a comparative analysis pipeline between BCl_3 and BF_3 affinities to statistically examine Lewis acidity trends
- Contributed novel predictive baselines to the research group, directly supporting 2 ongoing chemical studies

EXPERIENCE

Information Technology Help Desk Technician

Soka University of America

Oct. 2022 – Aug. 2026

Aliso Viejo, CA

- Diagnosed and resolved hardware, software, and network issues across Windows/macOS for the campus community
- Supported 500+ students, 200+ staff, and 80+ faculty to ensure minimal downtime
- Resolved 150+ support tickets weekly through ticketing systems, supporting users remotely and in person

Cheminformatics Undergraduate Research Assistant

Soka University of America

Oct. 2025 – May 2026

Aliso Viejo, CA

- Built pipelines for molecular data processing, conformer generation, and automated parsing of 100+ DFT output files
- Developed data analysis and visualization tools to evaluate fluorescence properties across 10+ molecular environments
- Trained 2 research group members in Python and created tutorials for reproducible scripting workflows

Computational Chemistry Undergraduate Research Assistant

Soka University of America

May 2025 – Jul. 2025

Aliso Viejo, CA

- Built Python models with scikit-learn to predict chemical properties from molecular descriptors
- Achieved a MAE of 12.58 kJ/mol and Pearson $r = 0.897$ against DFT-calculated values for a small dataset
- Engineered data cleaning, analysis, and visualization pipelines to prepare and validate datasets for model training

RFP/Business Development Intern

HOTB Software

May 2024 – Aug. 2024; Feb. 2025 – May 2025

Irvine, CA

- Designed and built 10+ interactive Power BI dashboards surfacing 8+ key metrics, reviewed by the CEO and president
- Developed Python scripts to automate data mining, cleaning, and sorting across internal company datasets
- Eliminated recurring manual data entry, saving 4 hours per month in the president's budgeting workflow