# Andrew Wang

Phone: (303) 258-6551 | Email: andrew@raining.net | LinkedIn: in/andrewy-wang

## EDUCATION

**University of California, Santa Barbara** - GPA: **3.86/4.00** — **Santa Barbara, CA**
Bachelor of Science in Mechanical Engineering — **Sep 2022 - Present**
**Honors/Awards:** Regents Scholar, Dean's Honors
**Undergraduate Coursework:** Numerical Analysis, Machine Learning, Dynamical Systems, Computer Vision Principles, CAD, Multiphysics Simulation, Finite Element Analysis, Mechatronics, Structural Analysis, Fluid/Thermal Sciences

## TECHNICAL SKILLS

**Programming Languages:** MATLAB, Python, Javascript, C++, HTML/CSS, Ruby, PHP, SQL
**Tools and Frameworks:** COMSOL, SolidWorks, LaTeX, Microsoft Office, Ruby on Rails, Svelte, Node.js
**Other Skills:** Machining (Lathe/CNC Mill), Japanese Language

## EXPERIENCE

**Computational Applied Science Laboratory** — **Santa Barbara, CA**
*Mechanical/Computational Engineering Research* — **Jan 2024 - Present**
*Faculty Advisor: Frederic Gibou*

- Helped develop and wrote documentation for CASL-HJX, a library for solving generalized first- and second-order PDEs. Submitted to *Computer Physics Communications*, publication pending.
- Develop fluid simulation paradigms based on Navier-Stokes equations and implement optimized calculation schemes for Poisson's equation.

**Daily Nexus** — **Santa Barbara, CA**
*Games Developer/Editor* — **Apr 2024 - Present**

- Design, develop and maintain website for the Games section of the campus's newspaper, making the Nexus one of the first college newspapers to have a dedicated games webpage.
- Program UI and logic for several online games and automatic generation schemes for various puzzles.
- Assemble and manage a team of writers and maintain a consistent stream of content.

## SELECTED PROJECTS

**The Bespectacled Bot** (Jun 2025)

- Worked in a team of four to design and build a voice-controlled robotic arm capable of manipulating containers with objects in them.
- Used SolidWorks to design and perform FEA simulations on robot parts.
- Designed and wrote Arduino software to handle voice commands and control motors and LEDs.

**Double Pendulum Applet** (Apr 2025)

- Designed and programmed an interactive applet simulating a double pendulum using OpenFL.
- Implemented real-time interactivity and customization of all physical parameters.
- Used numerical methods to implement a solution to the equations of motion.

**UCSB Course Schedule Builder** (Jan 2024)

- Worked in a team of four to develop a Flask-based schedule building app for UCSB students.
- Pulled class data from the UCSB and RateMyProfessor APIs to build schedules based on user preferences.
- Handled frontend and UI development, codebase management and frontend/backend integration.

**Personal Website** (https://thesquishylab.com)

- Personal website showcasing various programming projects and writings.
- Built using Express.js and SQLite on the backend.

## LEADERSHIP & INVOLVEMENT

**UCSB Japanese Language Café** — **Santa Barbara, CA**
*President* — **Sep 2023 - Present**

- Lead efforts in planning, organizing and hosting of club meetings/events, management of budget and spending, and translation of announcements and documents.