SELENA ZHOU

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EDUCATION

Dartmouth College   **Jun 2026**
Bachelor of Arts, Major in Computer Science, Double Minor in Film Studies & French   *Hanover, NH*
GPA: 3.95/4.0
Key Courses: Algorithms, Security & Privacy, Probability, Software Design & Implementation, Object-Oriented Programming
Activities: Dartmouth Women in CS Web Dev, HackDartmouth Co-Director
Honors/Awards: Sandra & Arthur Irving Family Scholarship Recipient, Dartmouth Honor List

EXPERIENCE

MongoDB   **Jun 2025 – Aug 2025**
Software Engineering Intern   *New York City, NY*
- Developed an internal tool to automate performance regression detection by comparing benchmark results from PRs against the main branch. Automatically generates PR comments for significant deviations and links to the affected benchmarks.
- Usable across all 13 MongoDB drivers. Live in Go-Driver open-source project with 8,000+ users. Tech stack: **Golang, Bash**

Digital Applied Learning and Innovation (DALI) Lab   **Sep 2023 – present**
Software Developer – Mentor   *Hanover, NH*
- Collaborate with teams of designers and engineers to build and deploy full-stack web apps. Deliver high-impact solutions to community problems. Tech stack includes **React.js, Javascript, Typescript, MongoDB, Directus**.
- Built Link~VT, a web app that connects local citizens in Vermont who are out of work due to injury to personalized resources and career coaches. Responsible for databases, user accounts, resource table and search filters, reaching 400+ users in VT.

MongoDB   **Jun 2024 – Aug 2024**
Software Engineering Intern   *Austin, TX*
- Completed a project responsible for a mass migration of an outdated repository to a mono-repo with standardized configurations, affecting 300+ internal developers. Tech stack: **Typescript, React, Go**
- Implemented a search feature that filters for triggers names using fuzz query and debounced search. Affects 250+ global apps.

Dartmouth College Computer Science Department   **Jan 2023 – present**
Teaching Assistant for COSC 10: Object Oriented Programming (Java)   *Hanover, NH*
- Lead weekly lectures teaching algorithms and data structures in **Java**. Hold tri-weekly office hours to debug student code.
- Grade and provide feedback on assignments, hold review sessions, and mentor 80+ students in object-oriented programming.

COURSE PROJECTS

WhisperChain+ – *encrypted anonymous messaging system in terminal, link*   **April 2025 – May 2025**
- A secure anonymous messaging delivery, where users can send and receive messages in a securely encrypted environment. Features SHA-256 **encryption/decryption**, **RSA key pairs**, and **blind tokens**. Runs in terminal, coded in **Python**.

Pengulingo – *multiplayer language learning game in React.js, link*   **May 2024 – Jun 2024**
- Essentially Kahoot and Duolingo combined. Built an app that helps people learn languages in fun and competitive multiplayer minigames in **React** with **MongoDB** database storage. Real-time gameplay updates. All graphics are original designs.

Noteam – *collaborative notes app in React.js, link*   **Apr 2024**
- Built a multi-user notes app that updates in real-time in **React** with **Firebase RealTime** database storage. Supports markdown, mobile view, fully customizable notes, and multi-browser usage. *link to source code*

PERSONAL PROJECTS

AstroRun – *personal project in Python, link*   **Apr 2023 – May 2023**
- Coded a 2D platformer in Pygame, with published executable file. Created original artworks for all in-game graphics.

rEVBot – *personal project, link*   **Feb 2021 – Mar 2021**
- Developed and deployed educational Discord bot about electric vehicles. Features embedded live mini-game functions, server leaderboards, and virtual wallet in **Python** with 100+ users and 50+ community members. Hosted using **Heroku Cloud API.**
- Leaderboard and wallet information stored in **Cloud FireStore DB**. Supports data-parsing for key words handling .csv files.

SKILLS & INTERESTS

Proficient in: Python, React.js, Java, Typescript, Javascript, Golang, HTML/CSS, Git, LaTeX, Figma, Final Cut Pro
Familiar with: C, Bash, SQL, Mongo DB, Firebase DB, Adobe CC (Photoshop, Lightroom, Premiere, Illustrator)
Languages: English (fluent), Mandarin (fluent), French (working proficiency)
Interests: Biking, photography, game design, Lego Sets, Stardew Valley, flag football, film analysis, junk journaling