

Brown University
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Eric Wu

education

Sc.B., Computer Science & Philosophy, *Brown University*, 2024–2028 (expected).

GPA: 3.91.

Coursework: *Deep Learning, Computer Systems, Abstract Algebra, Statistics & Probability with Calculus, Honors Linear Algebra w/ Theory*.

research experience

Undergraduate Research Assistant, Automatic Coordination of Teams Lab,
Brown University, March 2025–September 2025.

(Primary advisor: Tabitha Oanda, PhD Student.)

- Optimized training time of reinforcement models by $1.5\times$ using JIT compilation and multi-threaded processing.
- Engineered new features into a multi-agent simulation environment, including dynamic obstacles and physics modifications to study coordination under realistic constraints.
- Deployed large-scale experiment batches on high-performance computing clusters with Slurm scheduling and used TensorBoard to analyze agent performance trends and policy generalization.

professional experience

Software Engineering Intern, Digital Investment Technologies,
Royal Bank of Canada, May 2024–August 2024.

- Orchestrated automatic financial plan verification via full-stack application (Spring Boot, Angular, Hadoop, Oracle), reducing manual review time by 37.5 hrs/week.
- Boosted plan reliability by 20% through validation against 34 business rules and 100+ automated tests to flag inconsistencies and errors.
- Led front-end development of a platform used across teams, aligning with RBC design guidelines and collaborating with designers to ensure accessibility and usability.

Software Engineering Intern, Digital Document Handling,
Royal Bank of Canada, May 2023–August 2023.

- Secured sensitive data of 8,000+ high-net-worth clients by implementing robust authentication protocols on a custom file-sharing platform.
- Automated log generation and analysis pipelines for security audits using Tableau, streamlining weekly reviews and reducing manual reporting workload by 8 hrs/week.
- Documented 30+ platform APIs via Confluence and Swagger, enhancing RESTful data stream integration and cross-team integration.

teaching
experience

Undergraduate Teaching Assistant, *CSCI 0300: Fundamentals of Computer Systems*, Brown University, Spring 2026 (forthcoming).

projects

TYPE S#!T: User Authentication through Typing Patterns, December 2025.

- Achieved 80% accuracy rate with 1D CNN verification network using meta-learning and few-shot adaptation, enabling rapid enrollment.
- Designed deep generative models (VAE + GAN) to synthesize realistic typing patterns and augment scarce user data.

Ailurus: Webscraper & Update Notifier, December 2025.

- Built a web scraper to monitor a popular fiction platform and detect newly published/updated webnovels, triggering alerts via webhook on an hourly cron schedule.
- Enabled real-time user notifications via Discord API to ensure immediate awareness of new publications.
- Dockerized and deployed the app on DigitalOcean with GitHub Actions, enabling low-maintenance CI/CD.

skills

Languages: Java, Python, C, C++, SQL, JavaScript, TypeScript, Lua, \LaTeX .

Frameworks: Node.js, Angular, JUnit, Mockito, Spring, Spring Boot, Material-UI, Express.

Tooling: Git, DigitalOcean, Docker, GitHub Actions, Jupyter Notebooks, VS Code.

Libraries: Tensorflow, pandas, NumPy, Matplotlib, BeautifulSoup, Cheerio.

service to the
community

Intern, Philanthropy, *United Way of Rhode Island*, September 2025–Present.

Officer, Outreach & Partnerships, *Brown Votes*, September 2024–Present.

Volunteer, *Student Clinic for Immigrant Justice*, January 2025–June 2025.

extra-
curriculars

Executive Board, *Brown/RISD Game Developers*, 2024–Present.

Executive Board, *Brown Cooking Club*, 2024–Present.

Developer/Designer, *Full Stack at Brown*, 2024–Present.

Tour Guide, *Office of College Admissions*, Brown University, 2025–Present.

Editor, *A Priori: Brown Undergraduate Journal of Philosophy*, 2024–Present.