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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, <i>CSCI 0300: Fundamentals of Computer Systems</i> , Brown University, Spring 2026 (forthcoming).
projects	<p>TYPE S#!T: User Authentication through Typing Patterns, December 2025.</p> <ul style="list-style-type: none"> <li>• Achieved 80% accuracy rate with 1D CNN verification network using meta-learning and few-shot adaptation, enabling rapid enrollment.</li> <li>• Designed deep generative models (VAE + GAN) to synthesize realistic typing patterns and augment scarce user data.</li> </ul> <p>Ailurus: Webscraper &amp; Update Notifier, December 2025.</p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• Enabled real-time user notifications via Discord API to ensure immediate awareness of new publications.</li> <li>• Dockerized and deployed the app on DigitalOcean with GitHub Actions, enabling low-maintenance CI/CD.</li> </ul>
skills	<p>Languages: Java, Python, C, C++, SQL, JavaScript, TypeScript, Lua, <math>\text{\LaTeX}</math>.</p> <p>Frameworks: Node.js, Angular, JUnit, Mockito, Spring, Spring Boot, Material-UI, Express.</p> <p>Tooling: Git, DigitalOcean, Docker, GitHub Actions, Jupyter Notebooks, VS Code.</p> <p>Libraries: Tensorflow, pandas, NumPy, Matplotlib, BeautifulSoup, Cheerio.</p>
service to the community	<p>Intern, Philanthropy, <i>United Way of Rhode Island</i>, September 2025–Present.</p> <p>Officer, Outreach &amp; Partnerships, <i>Brown Votes</i>, September 2024–Present.</p> <p>Volunteer, <i>Student Clinic for Immigrant Justice</i>, January 2025–June 2025.</p>
extra- curriculars	<p>Executive Board, <i>Brown/RISD Game Developers</i>, 2024–Present.</p> <p>Executive Board, <i>Brown Cooking Club</i>, 2024–Present.</p> <p>Developer/Designer, <i>Full Stack at Brown</i>, 2024–Present.</p> <p>Tour Guide, <i>Office of College Admissions, Brown University</i>, 2025–Present.</p> <p>Editor, <i>A Priori: Brown Undergraduate Journal of Philosophy</i>, 2024–Present.</p>