Lily Shiomitsu

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EDUCATION

Northeastern University — Boston, MA
BS in Computer Science, concentration in Artificial Intelligence, minor in Spanish — *Sep 2022 – May 2026*
Cumulative GPA: 3.92/4.0
Awards: University Honors Program, Amelia Peabody Scholarship, Dean's List (all semesters)
Relevant Coursework: Algorithms and Data, Machine Learning 1, Object-Oriented Design, Artificial Intelligence
Activities: Electric Racing Club (SWE), Chess Club, Symphony Orchestra, NUWIT
Study Abroad: Software Development and Innovation in Sydney, Australia (Summer 2025)

EXPERIENCE

DevOps Software Engineer Co-op — Jan 2025 – Jun 2025
Wolters Kluwer — *Waltham, MA*
- Built PR merge checks with smoke tests, Helm/YAML validation, and auto PR feedback, reducing configuration errors and improving deployment reliability
- Parallelized smoke tests and automated service refreshes across 20+ web apps, saving 15 mins per release and hundreds of dev hours annually
- Implemented zero-downtime deployments for test and mirror envs, saving 100-200 hrs/year per 10 team members
- Refactored scripts, added targeted seed job parameters, and upgraded JDKs, cutting build/seed times and improving maintainability

Software Engineer Intern — May 2024 – Aug 2024
Ultimate Kronos Group (UKG) — *Lowell, MA*
- Developed and optimized backend solutions in Java to address critical software defects and implement new features and updates for UKG's Pro WFM software, enhancing system reliability and functionality
- Resolved customer defects by deploying user applications with Kubernetes and debugging using hot swapping
- Conducted pseudo-locale testing to verify the localization readiness, identifying and resolving issues pre-release

Artificial Intelligence/Machine Learning Fellow — Aug 2024 – Apr 2025
Dropbox / Break Through Tech AI @ MIT — *Cambridge, MA*
- Designed and implemented document-parsing algorithms to identify and organize flight, hotel, restaurant, and activity information from email content.
- Collaborated with a team of 5 and a mentor through the full development cycle, from initial design to deployment.

Teaching Assistant — Sep 2023 – Present
Northeastern University — *Boston, MA*
- **Fall 2025**: DS 4400 (Machine Learning and Data Mining 1); **Fall 2024**: CS 3000 (Algorithms and Data); **Fall 2023**: CS 1800 (Discrete Structures)
- Hold 5 hours of office hours per week to meet individual students for academic support and tutoring
- Assist in weekly recitations, helping an average of 30 students per session with academic support
- Provide faculty support in grading and reviewing assignments, and answering students' questions on Piazza

PROJECTS

Speech-to-Text Web Application | *Python, FastAPI, AWS Transcribe, OpenAI, Deepgram, GitHub* — Jul 2025
- Implemented a FastAPI backend enabling real-time speech-to-text transcription using multiple STT providers
- Developed RESTful API endpoints for file uploads, session-based processing, and performance metric generation
- Added per-session folder management and system-level tracking for latency/CPU analysis
- Collaborated with University of Sydney on live speech-to-text deployment for healthcare workers in dementia care

Spotify Chatbot | *Python, Gradio, Spotify Web API, OpenAI, GitHub* — Dec 2024
- Developed an interactive chatbot to provide music recommendations via natural language conversation
- Built a custom recommendation engine combining Spotify dataset filters with mood parameters
- Created a Gradio interface enabling music recommendations, playlist management, and mood customization

TECHNICAL SKILLS

Languages: Java, Groovy, Python, SQL, C++, QML, C, JavaScript, TypeScript, HTML/CSS, Racket
Developer Tools: Git, Jenkins, Docker, Postgres, Kubernetes, Gradle, Qt
Operating Systems: MacOS, Windows, Linux