Sebastian Tremblay

tremblay.se@northeastern.edu | Personal Website | GitHub | LinkedIn

EDUCATION

Northeastern University

Boston, MA

Candidate for B.S. in Computer Science, Minor in Mathematics

September 2021 - May 2025

Achievements: 3.99/4.00 GPA, Huntington 100 Scholar, Dean's Scholarship, Dean's List Award (×5)

Coursework: Networking & Distributed Systems, Algorithms & Data Structures, Object Oriented Design, Database

Design, Machine Learning I/II, Multivariable Calculus, Stochastic Modeling I/II, Linear Algebra

TECHNICAL SKILLS

Languages: Java, Python, C#, TypeScript, SQL

Frameworks & Libraries: Spring, Angular, React, Pandas, Scikit-Learn

Tools: PostgreSQL, MySQL, Redis, Docker, Kubernetes, Terraform, Kafka

Certifications: AWS Cloud Practitioner

Work Experience

Software Engineer Co-Op — Northeastern University, Boston, MA

September 2024 – Present

- Developed full-stack grading platform extension for GitHub (TypeScript, React, Go Fiber, PostgreSQL) to replace existing grading tool for all CS/DS classes. Released beta version to 4 courses, serving 700+ students and 40+ graders
- Managed team of five co-op developers, serving as primary liaison between university stakeholders and development team. Led all scoping and project planning with Agile ceremonies, incorporating individualized check-ins and feedback
- Provisioned scalable and highly-available AWS cloud architecture with Terraform. Deployed Dockerized backend on ECS with Fargate and frontend on S3/CloudFront, utilizing load balancers and elasticity to achieve 99.99% uptime

Software Engineer Intern — Salesforce, San Francisco, CA

May 2024 – August 2024

- Launched Admin Console UI for Intelligent Document Processing (IDP) tool, delivering 12 features to 40 DAU with AngularJS and Bootstrap. Reduced average troubleshooting time 30% by replacing previous terminal-based solution
- Constructed 8 routes for Spring Boot/WebFlux API to support debugging functionality offered in IDP Admin Console
- Researched impacts of LLM Gateway integration with Kubernetes/Splunk, enabling expansion of supported models
- Eliminated 80% of manual validation in human review tasks by refactoring scope of extraction criteria enforcement
- Orchestrated VTO event with 30+ employees, recruiting external charity speaker and leading hands-on team activity

Software Engineer Co-Op — Insulet Corporation, Acton, MA

July 2023 – December 2023

- Developed tool (C#/MySQL) to automate hardware connectivity testing, scaling quality assurance throughput 230%
- Initiated team's transition to automated API testing, demonstrating POC by automating 42 manual tests with Python. Integrated ReadyAPI to minimize human interaction during integration testing, slashing release cycle duration 80%
- Introduced app workflow encapsulation using publisher-subscriber design, enhancing GUI with 3 live status indicators
- Refactored hardware interaction layer with template method pattern, maximizing modularity across 14 response classes

Software Engineer Intern — Ultimate Kronos Group (UKG), Virtual

May 2022 – December 2022

- Earned Employee of Month and job extension offer for resolving fatal system crash from external dependency failures
- $\bullet \ \ Diagnosed \ and \ resolved \ 31 \ software \ bugs \ by \ interfacing \ with \ clients, \ implementing \ fixes \ using \ C\#/Angular/MySQL$
- Developed application in internal hackathon to automate local environment setup for new hires (Python/Bash Scripts), reducing average onboarding time by 2 days. Won "Fan's Favorite" award and deployed solution to over 300 engineers

Projects

Raft Protocol | Python

April 2024

- Implemented Raft consensus protocol to tolerate multi-node failures and message loss in distributed key-value datastore
- Achieved 99.82% success rate for requests in simulated network, ensuring zero packet duplication and minimal redirects

$\textbf{Facial Detection Attendance Tracker} \mid \textit{Python, GCP, Azure, OpenCV}$

January 2024

- Leveraged GCP Video Intelligence to detect segments in surveillance footage with faces. Extracted frames via OpenCV
- Trained custom facial recognition model with Azure Face API to classify extracted images, achieving 0.913 AUC-ROC

ACTIVITIES & INTERESTS

Activities: Fundraiser Coordinator (Raised \$40,000 for Breakthrough T1D), Undergraduate Career Mentor

Interests: Electric Longboarding, Teaching, Traveling, Mechanical Keyboards