

# Sebastian Tremblay

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## 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, Go, C

**Frameworks & Libraries:** Spring, Angular, React, Pandas

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

**Certifications:** AWS Cloud Practitioner

## WORK EXPERIENCE

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

September 2024 – Present

- Built and launched full-stack grading extension for GitHub (*TypeScript, React, Go Fiber, PostgreSQL*) to replace legacy grading tool for programming courses. Released beta version to four classes, serving 700+ students and 40+ graders
- Managed team of five co-op developers, leading development efforts through Agile ceremonies, personalized check-ins, and code reviews. Partnered with university stakeholders to define product requirements, scope, and release timeline
- Designed resilient AWS architecture, achieving 99.99% uptime through auto-scaling policies, automatic failover, and load balancing. Provisioned resources with Terraform, deploying Dockerized microservices on AWS ECS with Fargate
- Amplified system scalability by integrating Redis for caching/session management, slashing GitHub API queries 30%

### Software Engineer Intern — Salesforce, *San Francisco, CA*

May 2024 – August 2024

- Launched Admin Console UI for Intelligent Document Processing (IDP) tool, releasing 12 monitoring features to 40 WAU (*AngularJS, Bootstrap*). Reduced average troubleshooting time 30% by replacing legacy terminal solution
- Constructed 8 routes for Spring Boot/WebFlux API to support debugging functionality offered in IDP Admin Console
- Analyzed impacts of LLM Gateway integration using 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 40+ attendees, recruiting external charity speaker and leading hands-on team activity

### Software Tools Co-Op — Insulet Corporation, *Acton, MA*

July 2023 – December 2023

- Developed quality assurance tool to automate insulin pump connectivity and responsiveness testing (*C#, MySQL*)
- Pioneered transition to automated API testing, showcasing POC by converting 42 manual tests into Python scripts. Slashed release cycle duration 80% by spearheading ReadyAPI adoption to reduce manual efforts in integration testing
- Redesigning app workflows to support nested processes via pub-sub design, enhancing granularity of 3 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
- Diagnosed and resolved 31 software bugs by interfacing with clients, implementing fixes with *C#, Angular, and 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 Consensus Protocol | *Python, Networking, Reliability*

April 2024

- Designed and implemented Raft consensus protocol to promote fault-tolerance and consistency in distributed data store
- Achieved 99.92% request success in simulations of 30% packet loss, concurrent partitions, and consecutive leader failure

### Facial Detection Attendance Tracker | *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:** Automation, Electric Longboarding, Teaching, Traveling, Mechanical Keyboards