

# ALEXA HERNANDEZ

## EDUCATION

### MCGILL UNIVERSITY

Montreal, QC

April 2022

- **M.Sc. Computer Science**; GPA: 4.0/4.0
  - **Achievements:** Published paper in IEEE Transactions on Software Engineering; \$23,000 Provincial Research Scholarship (FRQNT); Graduate Excellence Fellowship.
  - **Coursework:** Building Intelligent Systems; Computer Networks; Compiler Design.
- **BA Computer Science, Minor in Management**; GPA: 3.91/4.0
  - **Achievements:** Graduated on Dean's Honours List; Mary Coppin Scholarship.
  - **Coursework:** Software Design; Database Systems; Algorithms & Data Structures; NLP.

2016 – 2020

## EXPERIENCE

### SOFTWARE DEVELOPER INTERN

May 2019 – Sept 2020

Société Générale

- Developed a production support chatbot using **Microsoft Bot Framework**, **Python**, and **Rasa NLU**. Estimated to save support analysts 30mins/day by answering frequently asked questions.
- Co-created a Chatbot League:
  - Reduced time-to-market to 3 weeks by producing Python microservices, documentation, and tutorials.
  - Facilitated adoption by defining best practices and a target technology stack.
  - Minimized duplicated efforts by monitoring all chatbot projects and hosting league meetings, each with 40+ attendees, to increase synergies amongst teams.

### SUNI – TEST CONVENTION CHECKER

Sept 2020 – Present

McGill Masters Research Project

- Devised Suni, a tool to improve test suite quality by detecting inconsistent applications of test conventions.
- Implemented a flexible **Java** backend that identifies patterns in ASTs and a **Vaadin** frontend to display results.
- Analyzed open-source test suites and 70+ blog posts to identify common test conventions to build-into Suni.

### DScribe – TEST & DOCUMENTATION GENERATOR

Jan 2019 – Present

McGill Software &amp; Technology Lab

- Co-developed DScript, a novel template-based approach to co-generate unit tests and documentation.
- Improved user experience by simplifying the template instantiation process using **Java annotations** and exposing DScript as an **Eclipse Plugin**.
- Conducted a usefulness study of DScript by applying it over 800 specifications in Apache Commons IO.

### VOLUNTEER MANAGEMENT SYSTEM

Sept 2019 – April 2020

Santropol Roulant

- Designed and developed a volunteer management system, using **Angular**, **Electron**, and **Firebase**, to streamline staff operations at Santropol Roulant, a food security NGO.
- Actively engaged with employees to gather requirements and feedback on existing features.
- Prioritized features based on importance and cost and distributed them amongst 4 developers.

### OTHER EXPERIENCE

- **Movie Recommender:** created a smart, scalable movie recommender using **FastAPI**, **Docker**, **MongoDB**.
- **McGill Impact200 Finalist:** built a platform to match volunteers to local food-organizations.
- **Teaching Assistant:** designed class activities and led lab sessions for a **Java** Software Design course.

## SKILLS

**Languages:** Java, Python, SQL (Proficient); Typescript, HTML, CSS (Advanced); C (Familiar)**Technologies:** Git, PostgreSQL, SQL Server (Proficient); Docker, MongoDB, Jenkins, Prometheus (Familiar)**Frameworks:** JUnit, Angular; Vaadin (Advanced); FastAPI, Flask, Java Spring Boot (Familiar)