

Peter Bailey

613 402 2221 | peterkbailey@protonmail.com | linkedin.com/in/peterkbailey | github.com/PeterKBailey | Willing to relocate

EDUCATION

Carleton University

Sep 2019 – Apr 2024

Bachelor of Computer Science, Honours

Ottawa, ON

- **CGPA: 4.0/4.0 (A+)**
- **Honours & Awards:** [Governor General's Medal](#) (Top of graduating class), Dean's Honour List, Co-op Student of the Year nominee
- **Relevant Coursework:** Discrete Structures, Systems Programming, Abstract Data Types and Algorithms, Object-Oriented Software Engineering, Operating Systems, Database Management Systems, Machine Learning, Software Quality Assurance, Computer Vision, Information Systems, Reinforcement Learning

EXPERIENCE

Software Developer Co-op

Jan 2023 – May 2023

JSI Telecom

Ottawa, ON

- Enhanced a repair tool with additional functionality in response to an urgent customer support request, successfully restoring their lost data (*C#, .NET, MSTest, SQL*)
- Migrated key endpoints of a Java REST API from Spring Boot to Quarkus to facilitate containerization (*Java, Spring Boot, Quarkus, JUnit, RestAssured*)

Technical Developer Co-op

May 2022 – Aug 2022

Elections Canada

Gatineau, QC

- Prototyped a localized Angular SPA while publishing guides and demonstrations to expand the dev team's knowledge base (*TypeScript, Angular2, HTML/CSS, Jasmine, Documentation*)
- Spearheaded mob development on an administrative poll station tracking application, implementing SMS messaging and scheduling (*C#, .NET, Azure, Twilio, Hangfire*)

IT Developer Co-op

May 2021 – Dec. 2021

National Research Council

Ottawa, ON

- Used Oracle Apex development tools in direct collaboration with stakeholders to meet the client's ongoing and changing requirements (*Oracle Apex, Scrum*)
- Created custom CKEditor WYSIWYG Editor plugins empowering users with dynamic content replacement (*JavaScript, CKEditor, HTML*)
- Designed and managed data and scripts in the Oracle RDBMS required for business functionality (*SQL, PL/SQL*)

SKILLS

Languages: C, C++, C#, Haskell, HTML/CSS, Java, JavaScript, TypeScript, PL/SQL, Python, SQL

Environments, Tools, & Frameworks: Angular, Azure, Cucumber, Git, Gymnasium, JUnit, Linux, Next.js, Node.js, NumPy, Oracle Apex, Postman, PyTorch, Selenium, Visual Studio, Windows, .NET

Concepts: Agile, Client-Server Architecture, Databases, HTTP, Machine Learning, OOP, QA, Reinforcement Learning, REST, Single Page Applications, Sockets, TDD, UML Documentation

PROJECTS

[Discord Bot](#) | *TypeScript, Node.js, Discord.js, MongoDB, Fly.io, Git* —

- Discord Server virtual assistant hosted on fly.io with automated deployment
- Emoji usage tracking, automated username colouring to match profile picture, message text-reaction capability

[Pokemon Battle Reinforcement Learning Agent](#) | *Python, NumPy, Matplotlib, Gymnasium, PyTorch, Git* —

- One step Actor-Critic, DQN, Q-Learning
- Agent trained with tuned reinforcement learning algorithms to compete in Pokemon Showdown battles

[Gravity and Collision Simulator](#) | *Java, Processing* —

- A graphically rendered simulation of mass, gravity, and collision mechanics

[Web Crawl and Search](#) | *Node.js, Crawler, HTML, ElasticLunr, MongoDB* —

- Web crawler storing page information persistently for easy lookup using web front-end accessing RESTful API
- Uses pagerank and indexed search functionalities for finding relevant content