Devon Knight: Software Engineer Co-Op Internship Fall 2024

EDUCATION

B.A.Sc. Software Engineering (Co-Op)

University of Ottawa

Ottawa, ON, Canada, 12/2026

- GPA: 3.9 / 4.0: Digital Logic, Computer Architecture, Linear Algebra, Data Structures and Algorithms.
- Repping Canada at Dragonboat World Italy 2024, Class Rep, Sponsorship Manager, Deans Honor Roll.

H.B.Sc. Medical Science GPA: 3.9 / 4.0 Western University London, ON, Canada, 07/2019

SKILLS

- Proficient: Python, C, Java, Docker, HTML, CSS, UML, Firebase, Splunk, Git, Linux, GitHub.
- Experienced: Unix, Bash, Shell, ReactJS/Native, JavaScript, MongoDB, SQLite, SQL, NoSQL, REST, JSON.
- Beginner: C++, C#, Android, TypeScript, Assembly, Groovy, Jenkins, Maven, Gradle, K8s, Node, NEXT, R.

WORK EXPERIENCE

DevOps Engineer Intern

Royal Bank of Canada

Toronto, ON, Canada, 01/2024 - 04/2024

- Reduced deployment time by 15 minutes per developer by writing automation scripts in Groovy and Shell that set up security and Gradle builds such as HTTP proxy, Jenkins, and Open-Shift Container Platform.
- Implemented the latest GitHub Actions/Runners with Google's Bazel Built Tool to build Docker Images and run Docker Containers on a Kubernetes Server, reducing complexity for developers.
- Built an automated DevOps Research Assessment data dashboard of our pipeline that builds 12 Applications using IBM Urban Code Deploy, Shell, and Splunk so tech-leads easily manage large product deployments.

Software Developer Intern

Ciena

Kanata, ON, Canada, 05/2023 - 12/2023

- Co-led an implementation of a Backend NoSQL MongoDB database feature across 47 microservices by leading 24+ JIRA's across 18 repositories using C, Python, Jenkins, Shell, Linux, Bitbucket, and Git.
- Implemented a novel Python Unit Test framework with 17 automated tests, reducing development time when running Jenkins builds by ensuring compliance to design by running tests in an impressive 0.10 seconds.

Machine Learning Researcher

University of Toronto

Toronto, ON, Canada, 06/2019 - 02/2022

• Effectively compiled quantitative and qualitative statistics from 28 patients and showed that AI chatbots have an 83% positive impact on the user experience during post-operative recovery within 6 months.

Computational Genetics Researcher

Western University

London, ON, Canada, 06/2018 - 05/2019

- Predicted cancer potential of 4 genes using Linux, Python, and 3D modelling, to guide financial investment.
- Presented at 4 Canadian conferences, receiving 3rd place out of 26 students in Ontario-Quebec.
- Co-authored 7 Scientific Publications collectively achieving over 1,000+ downloads and 5 citations.

PROJECTS

Co-Med

UofT Hacks 11

github.com/uOttaHackUofT/Co.med

- An LLM Al-assisted hospital triage system built with REST, Next.js, and Cohere's Large-Language Model
- Utilizes supervised learning to provide suggested diagnosis, prognosis, and triage level with ranked sources.

uOttaApp

uOttaHack Development Team

github.com/Devcon324/uOttaApp

- Developed an event tracker mobile app that tracked 650+ students' attendance, food, and raffle tickets.
- Built as a full-stack mobile app with React Native, HTML, CSS, JavaScript and Google Cloud's Firebase

Dungeons and Dragons Buddy

Devon Knight

github.com/Devcon324/DandD_Buddy

- Play speed increased by ~99.3% by implementing a search algorithm that parses 149+ pages of data.
- Built by using object-oriented design, Python, JSON, Selenium web-scraping, and Discord.py API.

LEADERSHIP

Developer → Director

uOttaHack (Canada's Capital Hackathon c.2018)

11/2022 - Present

- Fostered a community of 850+ students within 4 months by leading company and university collaborations.
- Coordinated an 800+ student hackathon by building an official site and live-event site using Node/ReactJS.
- Yielded an annual marketing impact of 44.8k views, and 25 Company Partners with new team strategies.

Speaker & Panelist

Canadian Undergraduate Software Engineering Conference

01/2024

- Presented as a keynote speaker to 400+ students and professionals on importance of non-tech domain knowledge to software engineering and philosophies of success that translate to the technology field.
- Deliberated the commonalities of careers in tech and health-academic research with discussion about machine learning, life as a published scientist, how research expanded my critical thinking.

International Experience Scholarship

Dean of Engineering

10/2023

• Selected to represent uOttawa to facilitate a cross-institutional collaboration between uOttaHack and Tec de Monterrey to host 800+ students across the world for Canada's first ever international hackathon.