Devon Knight: Software Engineer Co-Op Internship Fall 2024

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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.
- Designed an automated DevOps Research Assessment 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 Al 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.