# **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 Worlds 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, Kubernetes, 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 3<sup>rd</sup> 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
- Utilized **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, emphasizing the power of non-technical domain knowledge in software engineering with philosophies of success that translate into the tech field.
- Led discussions on the parallels between careers in technology and **academic research**, topics such as **machine learning** applications, navigating life as a scientist, and the transformative impact of research on critical thinking skills.

# **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.