

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 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/uOttHackUofT/Co.med
• An **LLM AI-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.

uOttApp [uOttHack Development Team](#) github.com/Devcon324/uOttApp
• 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 [uOttHack \(Canada's Capital Hackathon c.2018\)](#) *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 **uOttHack** and **Tec de Monterrey** to host **800+ students** across the world for **Canada's first ever international hackathon**.