

# Devon Knight: Software Engineer Co-Op Internship Fall 2024

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*Hi, I'm Devon! I am a Software Engineering student with a previous career in Health-Tech Research. I am open to any Development roles. I also have interests in Graphics, Ai, Gaming, Health, Embedded, Network, & Full-Stack.*

## 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, Android Dev.
- **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, Splunk, HTML, CSS, UML, Firebase, Git, Linux, GitHub.
- **Experienced:** Unix, Bash, Shell, ReactJS, React 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 Co-Op Intern** [Royal Bank of Canada](#) *Toronto, ON, Canada, 01/2024 – Present*

- 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** and **GitHub 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** to enable tech-leads to manage large product deployments.

**Software Developer Co-Op 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**, **JSON**, **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** using Microsoft **Excel** and **R-Studio**.
- Demonstrated that patient-Ai-doctor interaction has an **83% positive impact** on post-operative recovery.

**Computational Genetics Researcher** [Western University](#) *London, ON, Canada, 06/2018 – 05/2019*

- Predicted the cancer potential of 4 genes using **Linux**, **Python**, and **3D modelling**, to guide financial investment.
- Presented at **4 Canadian medical research 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/uOttHackUofT/Co.med](https://github.com/uOttHackUofT/Co.med)

- An **LLM AI-assisted** hospital triage web-application 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.

**uOttApp** [uOttHack Development Team](#) [github.com/Devcon324/uOttApp](https://github.com/Devcon324/uOttApp)

- Developed an event tracker mobile application 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](https://github.com/Devcon324/DandD_Buddy)

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

## LEADERSHIP

**Software Developer → Director of Sponsorship** [uOttHack](#) *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 **uOttHack** and **Tec de Monterrey** to host **800+ students** across the world becoming **one of the two Canadian international hackathons**.