

Devon Knight: Software Engineer Intern/Co-Op 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, Mobile Apps.
• **Dragonboat World-Champion, Class Representative, Engineering 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, HTML, CSS, UML, Git, Linux, GitHub, Android Studio, Docker.
- **Experienced:** Unix, Bash, Shell, ReactJS, React Native, JavaScript, MongoDB, SQLite, SQL, NoSQL, REST, JSON.
- **Base Knowledge:** C++, C#, Unity, TypeScript, Assembly, Groovy, Jenkins, Maven, Gradle, K8s, Node, NEXT.

WORK EXPERIENCE

DevOps Engineer Intern Royal Bank of Canada *Toronto, ON, Canada, 01/2024 – 04/2024*
• Reduced deployment time of applications 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 Runners** and **GitHub Actions** with **Google's Bazel Built Tool** to replace **Jenkins** with a serverless CI/CD pipeline, reducing complexity and increasing customizability for clients and developers
• Built an automated **DevOps Research Assessment data dashboard** of a pipeline that builds **12 Applications** using **Splunk**, **Shell scripts** to identify sources of development lag phases that can be expedited.

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 efficiently handling **24+ JIRA's** across **18 repositories** using **DevOps tools**, **Confluence**, **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**.
• Collaborated with an international team of **15 software engineers** in debugging and enhancing data communication infrastructure in **Python** and **C**, resulting in **improved product development** and customer satisfaction.

Machine Learning Researcher University of Toronto *Toronto, ON, Canada, 06/2019 – 02/2022*
• Quantified how artificial intelligence enhanced surgical recovery through **7 statistical reports** built with Excel.
• Effectively compiled quantitative and qualitative statistical data 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**, which guided funding allocation.
• Presented at **4 Canadian conferences**, receiving **3rd place out of 26** national research students in Ontario-Quebec.
• **Co-authored 2 peer-reviewed research papers** collectively achieving **1,000+ downloads** and **5 citations**.

PROJECTS

Co.Med UofT Hacks 11 github.com/uOttHackUofT/Co.med
• Reduced hospital overload by building an **LLM AI-assisted** hospital triage system with **REST**, **Next.js**, and **Cohere's Large-Language Model** to provide a suggested diagnosis, course of action, and triage level with ranked info sources.

uOttApp uOttHack Dev Team github.com/Devcon324/uOttApp
• Developed an event tracker mobile app that **tracked 650+ attendees'** workshop attendance, food vouchers, and raffle tickets by building a **full-stack mobile app** with **React Native**, **HTML**, **CSS**, **JavaScript** and **Firebase**

Dungeons and Dragons Buddy Devon Knight github.com/Devcon324/DandD_Buddy
• **Increased game speed by 99.3%** by implementing a **search algorithm** that parses **149+ pages of data** to generate game content by using **object-oriented design**, **Python**, **JSON**, **Selenium web-scraping**, and the **Discord.py API**.

LEADERSHIP

Software Developer → Director uOttHack (Canada's Capital Hackathon c.2018) **11/2022 – Present**
• Fostered a community of **850+ students** within **4 months** by leading workshops, intern panels, and company events.
• Coordinated a **800+ student** hackathon by building an **official site** and **live-event site** using **NodeJS**, and **ReactJS**.
• Yielded marketing impact of **44.8k views**, and **\$54,000** in sponsorship in one year by introducing new team strategies.

Speaker & Panelist Canadian Undergraduate Software Engineering Conference **01/2024**
• Presented as a **keynote speaker** to **400+** students and professionals on the approach of software engineering coming from another discipline of medical science 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 foster a partnership between **uOttHack** and **Tec de Monterrey**, MEX students to facilitate a **cross-institutional** collaboration to host **800+ students** across the world for an **international hackathon**.