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 Dev.
- **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, Docker, HTML, CSS, UML, Git, Linux, GitHub, Android Studio.
- **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 **build Docker Images** and run **Docker Containers** on an **RedHat Kubernetes Server**, reducing complexity for developers.
- Built an automated **DevOps Research Assessment** data dashboard of our pipeline that builds **12 Applications** using **Urban Code Deploy**, **Shell**, and **Splunk** 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/uOttaHackUofT/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.

uOttaApp   **uOttaHack Development Team**   github.com/Devcon324/uOttaApp
- 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   **uOttaHack (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 **uOttaHack** and **Tec de Monterrey**, MEX students to facilitate a **cross-institutional** collaboration to host **800+ students** across the world for an **international hackathon**.