

Devon Knight

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EDUCATION

B.A.Sc. Software Engineering (Mandatory Co-Op, Looking for Fall 2024)

Ottawa, ON, Canada

The University of Ottawa, Current GPA: 3.9 / 4.0

September 2022 – August 2026

- **Coursework:** Digital Logic, Computer Architecture, Linear Algebra, Data Structures and Algorithms, Mobile Apps.
- **Societies:** uOttHack, Engineering Student Society, Carleton Dragonboat Team, Deans Honor Roll.

H.B.Sc. Biology, Major in Microbiology and Immunology

London, ON, Canada

The University of Western Ontario, In-major GPA: 3.9 / 4.0

Conferred July 2019

SKILLS & INTERESTS

Languages: Python, C, C#, R, Java, HTML, CSS, JavaScript, TypeScript; Assembly; UML.

Technologies: Git, Jenkins, Linux, Unix, Bash, ReactJS, React Native, MongoDB, SQLite, SQL, NoSQL, REST, JSON.

WORK EXPERIENCE

DevOps Engineer Intern

Toronto, ON, Canada

Royal Bank of Canada, Real-Time Payments Team

January 2024 – April 2024

- Optimizing the deployment process for RBC software engineers through an automated **CI/CD pipeline** through the use of **Jenkins, Java, Scala, Groovy, Gradle, and Maven**, for shorter build times and expedite feature releases.
- Coordinating across **12 different organization repositories** to integrate our novel pipeline and collecting metrics to later conduct **data-processing** and identify sources of development lag phases that can be expedited.

Software Developer Intern

Kanata, ON, Canada

Ciena

May 2023 – December 2024

- 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, Unix, 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 Clinical Research Assistant

Toronto, ON, Canada

The University of Toronto,

June/2019 – February 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 Research Student

London, ON, Canada

The University of Western Ontario

July 2018 – May 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 over **1000 downloads and 5 citations**.

LEADERSHIP & PROJECTS

Director & Software Developer, uOttHack (Canada's Capital Hackathon for 6 years)

September 2022 – Present

- **uOttApp:** Built with React Native Frontend, and Firebase Backend to **track 600 attendees'** data and workshops.
- Collaborated with 18 organizers to build a new webpage, and event tracker web app, using NodeJS, and ReactJS.
- Accelerated our dev strategies ([2023 site](#) & [live site](#)), marketing (44.8k views), and sponsorship (raised \$54K).
- **Director of Software Community:** established international **tech diversity and inclusion** from Mexico and Chile.

Speaker & Panelist, Canadian Undergraduate Software Engineering Conference

January 2024

- **Software Engineering NewGame+:** Presented as a keynote speaker to discuss how to approach software engineering coming from another discipline of medical science and philosophies of success that translate to tech.
- **Academic Research Panelist:** Selected as a panelist to discuss the tech and health-tech research with discussion about **machine learning**, life as a **published scientist**, how research expanded my **critical thinking**.

International Experience Scholarship, Awarded by the Dean of Engineering

October 2023

- Traveled to Tec de Monterrey in Monterrey Mexico to represent the University of Ottawa diversity partner efforts.
- Shared my experience leading the university's hackathon at the World Engineering Education Forum.
- Facilitated cross-institutional collaboration to host **800+ students** across the world for an **international event**.

Dungeons and Dragons Buddy

github.com/Devcon324/DandD_Buddy

- Scripting app using object-oriented design, Python, JSON, Selenium web-scraping, and the Discord.py API.
- Implemented a **search algorithm** that parses **over 149 pages of data** to provide an efficient player experience.

Harvard University CS50 Intro to Computer Science

github.com/Devcon324/Harvard_CS50

- Developed **21 projects** solving real-world problems with **C, Python, SQL, HTML, CSS, and JavaScript**.
- Introduced to algorithms and data structures, databases, and web applications through a 10-week course.