Devon Knight

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EDUCATION

University of Ottawa, *Bachelor of Applied Science, Software Engineering (Co-Op)*   **Graduating Jan 2027**
GPA: 3.95, **Stanford University TreeHacks Winner (NVIDIA Edge AI Challenge)**, Class Rep, World Championship Dragonboat Team

SKILLS

Languages:	Python, Java, Typescript, JavaScript, HTML5, CSS3
Web Frameworks:	FastAPI, React, Spring Boot, React Native, PlayerUI, Node, Vite, NextJS, REST API's, JWT
AI and Data Science:	PyTorch, Tensorflow, Keras, SciKit, LangChain, LangGraph, Pandas, Numpy, Haystack, Probability, Statistics
Databases:	Neo4J, ChromaDB, Qdrant, Pinecone, SQL, MySQL, PostgreSQL, MongoDB, Firebase
DevOps:	Docker, Kubernetes, Linux, GitHub Actions, Jenkins, GitLab CI, Splunk, Agile, Git, Cisco CCNA

EXPERIENCE

Thales, *Data Scientist Intern*   *Ottawa, Canada*   *Sept 2025 – Present*
- Spearheaded a pivotal project within a **$5.2B Defense Contract**, securing **direct funding** to deliver a full-stack data platform.
- Oversaw a **Full-Stack** data platform to query live military data and gain ML predictions using FastAPI, Haystack, Neo4J, Docker.
- Implemented ML **Genetic Algorithms (NSGA-II)** to provide heuristic analysis and optimal choices for effortless client decisions.
- Built scalable **ETL pipelines** converting raw data tables and documents to embeddings in **vector databases** with **OCR, Haystack**.
- Defined **Backend** development of key projects, building graph queries, and containerized services for internal and client apps.

Intuit, *Full Stack Software Engineer Intern*   *Toronto, Canada*   *May 2025 – Aug 2025*
- Developed **data-driven** webpage variants for customer pricing offers and onboarding flow, in **Java/Kotlin, React, PlayerUI**.
- Refined an automated testing framework in Java for test-driven development of **Credit Karma** to **TurboTax** onboarding flow.
- Presented talks in Intuit Toronto's new **Generative AI Guild**, training **50+** engineers on the latest open-source Agentic AI tools.
- Collaborated with a **23**-engineer team for TurboTax onboarding flows that achieved an increase in TurboTax revenue by **9%**.

Royal Bank of Canada, *Machine Learning Engineer Intern* *Toronto, Canada*   *Sept 2024 – Dec 2024*
- Launched a **production-level anti-fraud** application for 3 countries, validating **500K+** addresses with **99.96%** precision.
- Designed an investment report analyst **AI agent** using LangChain, reducing review time of earnings reports by **70%**.
- Improved data processing **by 37%** by implementing a custom **RegEx** parsing algorithm and benchmarks on **HereAPI** and **Cohere**.
- Guided **communication with clients**, deriving functional requirements, and deliverable action items for productive Agile sprints.

Royal Bank of Canada, *DevOps Engineer Intern*   *Toronto, Canada*   *Jan 2024 – Apr 2024*
- Conducted a **monitoring microservice** that tracks production errors, boosting production velocity of **1000s** of engineers.
- Spearheaded a DevOps dashboard project with CI/CD metrics for **30+** apps logged in **Splunk, Elasticsearch** reducing downtime.
- Replaced **Jenkins** with a scalable **GitHub Actions** pipeline using **Kubernetes** and **OpenShift containers** on an **RHEL Linux Server**
- Achieved 15**% faster** build & deploy time by automating manual build tasks with Gradle, Groovy, & Kubernetes

Ciena, *Software Developer Intern*   *Ottawa, Canada*   *May 2023 – Dec 2023*
- Led production upgrades across **47 microservices** supporting high-traffic clients such as **Google, Amazon, Meta, Twitch**.
- Innovated on **17** fast DB migration tests (avg 0.10s) using Python MongoDB, preventing 12+ production failures pre-release.
- Established **34+** features across **20+** codebases using C, Python, expanding product functionality and improving user satisfaction.
- Created **20+ Python** unit-testing suites for a **NoSQL** database to accelerate data-integrity and validation workflows.

PROJECTS

CalTrack – NVIDIA Edge AI Winner 2nd Place   *Stanford University TreeHacks*   *Feb 2026*
- Simplified crisis prediction by mapping **650K** users over high-risk fire zones using an **Apple** WIFI Hack and NVIDIA Earth2 models.
- Empowered 911 operators during current crisis with a **911 conversational AI Agent** built with Twilio, NVIDIA Speech models.
- Extracted impactful data from phone calls using CrewAI to **geolocate events** and **triage** for efficient **hospital load-balancing**.

uOttaHack, *Sponsorship Director/Advisor*   *Canada's Largest Hackathon*   *Sept 2022 – Present*
- Responsible for boosting funding by **36.3%,** sponsorship deals by **77.8%**, project submissions by **55%**, and attendees by **32%**.
- Directed a cross-functional team across **Ottawa**, **Mexico,** and **Hong Kong's** leading universities with University of Ottawa.
- **Capstone Project**: Currently developing a **CRM** to simplify the hackathon directing experience for students and companies.

Research in Cancer and Orthopaedics   *UofT & Western*   *Aug 2020 – Mar 2024*
- Research student, used **Python and PyMol**, to identify genetic targets for children's cancer, with **18 citations**: Paper 1, Paper 2.
- Data-analyst, found that using Felix AI, an **NLP model**, boosted post-surgical recovery and saved time, with **49 citations**: Paper 3.