Riley Eaton

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Education

The University of British Columbia Sep 2024 – Aug 2026, expected
Master of Science in Computer Science; GPA: 4.20 on 4.33 scale *Kelowna, BC, Canada*
- Awarded the *UBC Okanagan Graduate Research Scholarship* in recognition of academic achievement
- Notable Graduate Coursework: Software Engineering, Modelling and Simulation, Computer Vision, Deep Learning, Data Wrangling in Medical Imaging for AI Applications

Trent University Sep 2019 – Apr 2023
Bachelor of Science Honours in Computer Science; GPA: 3.70 on 4.33 scale *Peterborough, ON, Canada*
- Awarded Dean's Honour Roll
- Notable Coursework: Advanced Algorithms, Data Mining, Digital Logic, High-Performance Computing, Human-Computer Interaction, Comparative Programming Languages, Automata Theory, Operating Systems, Computer Crime and Forensics

Experience

Graduate Student, Software Engineering and Data Science Sep 2024 – Present
BC Cancer *Kelowna, BC, Canada*
- Research in medical imaging analysis for **early detection of lung and breast cancer**
- Focus on building pipelines to de-identify patient data for future ML model development

Solutions Architect, Data & AI Jun 2023 – Aug 2024
IBM *Toronto, ON, Canada*
- Delivered technical solutions (custom demos, proof of concepts, workshops, minimum viable products) to stakeholders from hands-on teams to C-suite executives
- **Achieved over 450% of 2023 quota**, recognized in IBM's top 1% for learning achievement and invited to IBM's Golden Circle in 2024
- Promoted to oversee expanded territory (Manitoba, Saskatchewan, Atlantic Canada, and Ontario), and mentor new-hires
- Managed IBM's Data Management, Data Fabric (governance, integration, etc.), and generative AI portfolios

Software Engineering Intern, Full-Stack May 2020 – May 2023
IBM *Toronto, ON, Canada*
- Began first full-time internship in summer of 2020 and subsequently **asked to return** for student-on-call positions and **two additional** summer internships
- Worked in an agile development environment to build automation and productivity tools for sales enablement
- Maintained and enhanced existing projects while taking on larger solo projects each term
- The culmination of work from 2020 to 2022 resulted in an application that serves as IBM's new learning platform, adopted by **14,000+** sales professionals and **800+ sales executives worldwide**

Undergraduate Grader, Computer Science Jan 2022 – Apr 2022
Trent University *Peterborough, ON, Canada*
- Graded assignments for **200 undergraduate students** in C# programming
- Provided detailed, constructive feedback to help students improve coding practices, with individual help on request

Projects

Avionics System, SRAD Flight Computer | *C++, Arduino, ICs, Git* Oct 2024 – Present
- Subteam of the UBC Aerial Robotics and Rocketry Club, convening weekly to plan and solve new problems collaboratively
- Integrating COTS flight computer into student built high-powered hybrid rocket for telemetry and descent control during **Launch Canada 2025**
- Developing a custom avionics system from the ground-up using integrated circuit components and prototyping platforms

Weather Web Application - SkySage | *Python, JavaScript, RestAPIs, MySQL, GCP, Git* Nov 2024 – Dec 2024
- Final project for UBC SWE course to provide current weather and forecast trends using LLMs
- Worked cohesively as a team of four, following agile development principles to complete the project in 6 weeks, resulting in over 80 git branches, 1,050 commits, and 120 source code files totalling **17,000** lines of code
- Achieved a **99% final grade** for the project

Interactive Shell - IntelliShell | *C, Unix, LLMs, Git* Sep 2024
- A unix shell written in C with all the standard shell features, augmented with generative AI in order to assist the user in learning how to use the commands effectively
- Invalid commands are passed to a large language model (LLM), which summarizes the error message to provides helpful tips
- **3rd place winner** for the UBC AI for Social Good Hackathon

Reinforcement Learning Tutorial | *Python* Oct 2019
- Developed a Q-learning program for pathfinding in first-year university
- Created a tutorial video to educate others who are learning to implement similar machine learning (ML) algorithms
- Using no ML libraries, the algorithm and underlying equations were **implemented by hand**

Proficiencies

Technical Skills: Avionics, Fault Tolerance, Telemetry, Deep Learning Techniques, Relational Databases, NoSQL Databases (MongoDB), Data Pipelines, Medical Informatics, DICOM Standard, Unix/Linux

Software Engineering: Version Control (Git), Agile, Kanban, Cloud Deployment, Backend, MLOps, CI/CD, REST APIs

Languages: Python, MATLAB, R, C, Arduino, *C#*, Java, JavaScript, HTML, CSS, PHP, SQL, MIPS Assembly, LaTeX

Developer Tools: Docker, GitHub Actions, AWS, IBM Cloud, .NET Framework, Jupyter, Jira, Trello

Soft Skills: Technical Writing, Technical Sales, Client Relations, Public Speaking, Teaching, Mentorship, Adaptability