David Holcer

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EDUCATION

McGill University   December 2024
Bachelor of Science in Mathematics and Computer Science

EXPERIENCE

Documentation Engineer   Jan. 2025 – Present
McGill University   *Montreal, QC*
- Designed clear documentation to support onboarding and effective use of internal research infrastructure.
- Developed and maintained testing libraries, example bots, and bot detection scripts to demonstrate tooling usage and accelerate adoption across teams.
- Tech stack: Python, Typescript, Tailwind CSS, Docker

Creative Coding Lecturer   Jan. 2023 – May 2023, Jan. 2025
McGill University   *Montreal, QC*
- Teaching 50+ university students creative coding through 10 immersive workshops and a personal portfolio of interactive digital art projects. Partnered with the ChengHuai Art and Culture Association.

Data Science Researcher   Sept. 2024 – Dec. 2024
McGill University   *Montreal, QC*
- Innovating novel next-generation techniques for social media bot creation and detection supervised by Professor Derek Ruths. Research Paper Link.
- Harnessing Artificial Intelligence techniques using prompt engineering and fine tuning of LLMs. Tech stack: Python, Docker, Hugging Face API, Open AI Completion API, Llama LLM

Mathematics & Computer Science Tutor   Jan. 2020 – Dec. 2024
McGill University   *Montreal, QC*
- Led 20+ students to academic success through individualized tutoring sessions.
- Courses Taught: Calculus, Linear Algebra, Introduction to Computer Science.

Java AP Teacher   June 2020 – Oct. 2020
Geek Education   *Vancouver, BC*
- Effectively led a student cohort by developing 5 lesson plans, conducting 15 interactive coding demos, and overseeing 10 practical projects.

Software Developer   Sept. 2019 - Dec. 2019
McGill Artificial Intelligence Society Machine Learning Bootcamp   *Montreal, QC*
- Performed sentiment analysis of published news articles using NLP techniques.
- Tech stack: Python (Pandas, Numpy, Tensorflow, cv2, Sklearn, Seaborn), IBM Watson

Research Intern   June 2017 - Sept. 2017
Simon Fraser University   *Vancouver, BC*
- Research Topic: *Novel Genomics Data Clustering & Compression Methods* supervised by Dr. Leonid Chindelevitch.
- Achieved a 30% reduction in file size of DNA base pair sequences by developing a Markov Chain clustering algorithm comparing strands' similarities through their compressed representations.

TECHNICAL SKILLS

Coding Languages: Java, Python, C/C++, JavaScript, SQL, Typescript, OCaml, HTML/CSS, OpenGL
Frameworks: React, Node.js, Next.js, Tailwind CSS, Bootstrap
Developer Tools: Docker, AWS, Git, Relational Databases, MySQL, PostgreSQL, MongoDB
Libraries: NumPy, Matplotlib, PyTorch, p5.js, pandas
Skills: Data Science, Mathematics, Public Speaking, Communication, Research, Unit Testing