

Castor Shem

Edmonton, Alberta, Canada

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Education

University of Alberta

BSc COMPUTER ENGINEERING - SOFTWARE Co-op | GPA: 4.0/4.0

Edmonton, Alberta

Sep 2020 - May 2025

Skills

Languages Python, C/C++, C#, Java, SQL, JavaScript/TypeScript, HTML/CSS, PHP, Rust, Bash

Tools/Frameworks Linux/Unix, Git, Docker, GDB, PyTorch, TensorFlow, Android Studio, ReactJS, NextJS, Django, Flask, MongoDB, VSCode

General Agile, Scrum, Machine Learning, Data Analytics, Full-Stack Development

Experience

Practical Usable Privacy and Security Research Lab - University of Alberta

Edmonton, Alberta

RESEARCH ASSISTANT

May 2025 - Present

- Worked on a media analysis project contrasting digital privacy problems with existing solutions in the field of privacy-enhancing technologies
- Refined a model of privacy incidents with a research team

Engineering Software Team - University of Alberta

Edmonton, Alberta

APPLICATIONS DEVELOPER

Sep 2024 - Dec 2024

- Implemented bug fixes and feature requests for university intranet platform and eliminated unresolved ticket backlog for development team
- Overhauled access control system for role-based access standardization and security

Huawei Technologies Co. Ltd

Edmonton, Alberta

A.I. ENGINEER

Jan 2023 - Aug 2023

- Performed ablation studies and experiments to improve neural network performance using PyTorch
- Independently reviewed literature and designed experiments to develop novel training techniques

Fyshe Lab - University of Alberta

Edmonton, Alberta

RESEARCH ASSISTANT

May 2022 - Apr 2023

- Analyzed and processed fMRI data for machine learning and neuroscience experiments from large research databases with Python, MATLAB, NumPy, and scikit-learn
- Conducted independent research on tools for data analytics, processing, and quality control

Projects

Engineering Program Visualiser

[Github](#)

Sep 2024 - Apr 2025

- Developed Django backend for complex relational database, built SQLite database, and processed university course data
- Polished ReactJS/NextJS frontend using MaterialUI design components for users to visualise courses and customise an Engineering degree

Automatic Battlemap Board and Generator

[Devpost](#) [Github](#)

Feb 2025

- Designed and integrated hardware/software components for Arduino LED board and map webapp, placed 2nd in HackED 2025 hackathon
- Connected Google Gemini for map generation and helped develop Django/ReactJS webapp interface

HackED Platform Automation Bot

[Github](#)

Oct 2023 - Jan 2024

- Designed and developed system handling logistics for 200-person HackED Beta and 600-person HackED hackathons using Python, Discord API, Google Cloud Compute, and SQLite
- Ensured flexible and reliable system met unique event needs, saving 5 hours of judging time and logistical resources during 24-hour events

Leadership

Diversity in Engineering, University of Alberta

Edmonton, Alberta

PRESIDENT | VICE-PRESIDENT INTERNAL

Apr 2023 - Apr 2025

- Managed group operations and organized major networking and student culture events to promote community in the engineering faculty

Computer Engineering Club, University of Alberta

Edmonton, Alberta

HACKED PLATFORM ORGANIZER | VICE-PRESIDENT INTERNAL | MARKETING REPRESENTATIVE

Sep 2022 - Apr 2024

- Promoted and organized community-building, education, and career development events for over 500 Computer Engineering students