Castor Shem

University of Alberta - Edmonton, Alberta, Canada

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Education

University of Alberta   *Edmonton, Alberta*
BSc Computer Engineering - Software Co-op   *Sep 2020 - May 2025*
- GPA: 4.0/4.0 (First Class Academic Standing)

Research Experience

Practical Usable Privacy and Security Research Lab - University of Alberta   *Edmonton, Alberta*
Research Assistant   *May 2025 - Present*
- *Supervisor: Dr. Bailey Kacsmar*
- 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

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*
- *Supervisor: Dr. Alona Fyshe*
- 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

Professional Experience

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

Presentations

"Using Human Neural Data for Brain-Like Convolutional Neural Networks"   *Regina, Saskatchewan*
2SLGBTQ+ in STEM 2024   *May 2024*

Awards

2024	**University of Alberta Undergraduate Scholarship,** University of Alberta	*$ 5,000*
2023	**University of Alberta 1991 Foundation Undergraduate Scholarship,** University of Alberta	*$ 2,750*
2022	**Louise McKinney Post-Secondary Scholarship,** University of Alberta	*$ 2,500*
	Bruce A. Johnston Scholarship for Engineering and Leadership, University of Alberta	*$ 1,900*
	John E. Poole Engineering Undergraduate Scholarship, University of Alberta	*$ 2,000*
	University of Alberta Undergraduate Leadership Award, University of Alberta	*$ 600*
2021	**University of Alberta Undergraduate Scholarship,** University of Alberta	*$ 1,500*
2020	**Faculty of Engineering Inspiring Leadership Award,** University of Alberta	*$ 5,000*

Leadership

Diversity in Engineering - University of Alberta *Edmonton, Alberta*
PRESIDENT *Apr 2024 - Apr 2025*
- Managed internal group operations and handled relations with student groups, faculty partners, and industry contacts
- Organized and ran major networking and student culture events to promote community and inclusion in the engineering faculty

Computer Engineering Club - University of Alberta *Edmonton, Alberta*
HACKED PLATFORM ORGANIZER *Sep 2023 - Apr 2024*
- Developed automation program for online hackathon platform involving 600 participants, judges, mentors, and industry sponsors
- Managed hackathon platform, trained volunteers to use system, and fixed bugs on strict time constraints during fast-paced events

Diversity in Engineering - University of Alberta *Edmonton, Alberta*
VICE-PRESIDENT INTERNAL *Apr 2023 - Apr 2024*
- Maintained internal group operations, organized student events, and managed collaborations with other groups
- Introduced an initiative with the Computer Engineering Club to promote interest in equity and accessibility through hackathon challenges

Computer Engineering Club - University of Alberta *Edmonton, Alberta*
VICE-PRESIDENT INTERNAL *Apr 2022 - Apr 2023*
- Promoted and helped organize community-building, education, and career development events for over 500 Computer Engineering students
- Managed internal group affairs, communications, and records

Computer Engineering Club - University of Alberta *Edmonton, Alberta*
MARKETING REPRESENTATIVE *Sep 2021 - Apr 2022*
- Designed promotional material and managed team communications for marketing student events

AlbertaSat - University of Alberta *Edmonton, Alberta*
ALBERTASAT SOFTWARE TEAM MEMBER *Sep 2021 - Feb 2022*
- Helped develop tests for a communication platform aiming to interface with a student-developed satellite

Bridge2Engineering - University of Alberta *Edmonton, Alberta*
VOLUNTEER MENTOR *Aug 2021*
- Mentored 60 students during calculus, physics, and programming challenges, and provided advice on succeeding in the undergraduate engineering program