EDUCATION

Master of Mathematics (MMath Thesis) in Computer Science

September 2020 - September 2023 | University of Waterloo | Waterloo, ON Canada

Research in Human-Computer Interaction, Virtual Reality, Spatial Augmented Reality, Creativity Support Tools

Honours Bachelor of Science (HBSc) in Computer Science

September 2015 - April 2020 | University of Toronto | Toronto, ON Canada

Graduated with High Distinction and a specialist focus in Computer Vision

EXPERIENCE

Software Engineer III

Meta | October 2023 - Present | Toronto, ON Canada

Software engineering for Reality Labs Research

Research Engineer Intern

Meta | September 2022 - December 2022 | Toronto, ON Canada

Designed use cases and developed Augmented Reality (AR) research prototypes

Research Intern

Roblox | May 2022 - August 2022 | Virtual

- Implemented multiplayer Virtual Reality (VR) research prototypes on Roblox Studio using Luau and designed a user study
- Published late-breaking work at ACM CHI 2023 (Conference on Human Factors in Computing Systems)

Research Intern

Adobe | May 2021 - August 2021 | Virtual

- Developed a typography layout prototype using TypeScript and ran an online experiment built using JsPsych
- Extended work to publish a peer-reviewed research paper and patent

Research Assistant

Dynamic Graphics Project, University of Toronto | July 2020 - August 2020 | Toronto, ON Canada

- Designed and prototyped a tool for VR design space exploration in Unity 3D (C#) for Oculus Rift
- Conducted remote user studies and published results in ACM SUI 2021 (Spatial User Interaction)

Software Developer Intern

Autodesk | May 2019 - August 2019 | Toronto, ON Canada

- Developed features for Autodesk Maya's Render Setup using PyMEL, Python and Qt
- Collaborated with designers to design and implement a grouping feature for organization and manipulation of object overrides

Software Developer PEY Intern

Intel | May 2018 - May 2019 | Toronto, ON Canada

- Coordinated with international teams on design of Python and PostgreSQL infrastructure for organizing product information
- Maintained and extended a set of automated dashboards that displayed completion statistics for project management
- Used mathematical models to predict FPGA static power consumption and wrote supporting software in C++ and Python

Software Designer Intern

Nokia | May 2017 - August 2017 | Ottawa, ON Canada

Wrote various Python and Bash scripts used in daily build testing and mentored high school interns

PROJECTS

Machine Learning Image Denoiser

Rav Tracer

AR Food Bank Donation Filter

PyTorch

C++ Eigen Library

SparkAR