Amy Saranchuk

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Education

University of Toronto **Bachelor of Applied Science in Engineering Science** (Machine Intelligence Major)
Expected Graduation: May 2025
Relevant Coursework: Algorithms & Data Structures, Digital and Computer Systems, Signal Analysis, Machine Learning, Neural Networks, Artificial Intelligence, Databases, Statistics, Optimization
Thesis: Researching methods to improve interpretability in contrastive self-supervised learning for medical imaging

Work Experience

Bombardier Aerospace, Methods Intern — May 2022 – Aug 2023
- Served as scrum master for a team that secured first place in a Digital Transformation Competition with over 100 competitors by developing an AI-powered CFD engine for aerodynamic analysis in **Pytorch**
- Individually designed and developed a software tool in **Python** to streamline the management of aircraft issues, improving communication efficiency by 17 times and saving 14 hours weekly
- Facilitated the adoption of the tool across the Toronto site, supporting over 200 daily users and collaborating with various departments including senior executives to align the software with multiple stakeholder needs
- Directed a team of interns in creating a resource allocation software system utilizing **Angular** and **ASP.NET Core**, resulting in improved employee clocking by over 70%

Bombardier Aerospace, Operations Intern — Sept 2023 – Present
- Collaborating with senior developers to upgrade and scale the aircraft management application in preparation for deployment at Bombardier's Montreal and Texas sites

Remission Support, App Developer — Nov 2022 - Present
- Developing a mobile app for a start-up aimed at supporting cancer patients in remission, utilizing **Flutter** and **Firebase**, with a targeted release on the App and Google Play stores early 2024
- Conducting extensive testing through **Apple TestFlight** to ensure quality and user satisfaction

Software Projects

Capstone Project with Canadian Sports Institute — 2023
- Developed a machine learning algorithm to classify skiing sub-techniques during Olympic competitions
- Worked directly with clients from the Canadian Sports Institute

Music Genre Classifier — 2022
- Trained a convolutional neural network to classify audio samples into music genres as part of a team
- Authored a comprehensive report and presentation detailing the methodology and findings

Automated Microscopic Malarial Diagnosis Software — 2021
- Collaborated on a student engineer team to develop automated malaria diagnosis software using ML
- Produced a detailed design report and pitch to present our design and prototype to stakeholders

Technical Skills

Proficient: Python, SQL, Javascript, HTML/CSS, Dart, Angular, Git, Microsoft Office Suite
Familiar: C, C#, LINQ, MATLAB, Verilog, VBA

Awards

First place, Digital Transformation Case Competition, Bombardier Aerospace — Aug 2023
Recipient of the Faculty of Applied Science and Engineering Admission Scholarship — May 2019