

Brandan Burgess

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Education

University of Toronto

Honours Bachelor of Science in Computer Science (Co-op)

Toronto, ON

Sep. 2022 – May 2026

- **Specializing in Software Engineering**
- Relevant Courses: Software Tools and Systems Programming, Software Design/OOP, Intro to Computer Science I/II

Experience

Undergraduate Research Assistant

May 2023 – Present

Intelligent Adaptive Interventions Lab

University of Toronto, ON

- **Worked** as an undergraduate research assistant under the supervision of Ph.D. Angela Zavaleta to identify trends in academic interventions and student performance.
- Performed analysis on large datasets utilizing **Python** and **R** to measure and present effectiveness of interventions.
- **Collaborated** within multidisciplinary team to **discuss findings** and hypothesize potential **causes and trends between analysis**

Vice President – STEM Club

Sep. 2020 – June 2022

Ajax High School

Ajax, ON

- **Presided** over club meetings for an **8-month period**, introducing extracurricular topics and **planning initiatives**
- Facilitated several **course review seminars** ranging from introductory Algebra to Pre-Calculus
- Organized student PEER mentorship program which paired freshmen with seniors to provide **additional academic support**

Projects

UEFA Player Analysis | *Python, NumPy, Pandas, Matplotlib, Jupyter Notebook*

June 2023 – Present

- Developed and implemented **metric specific data-frames** to pre-process data in accordance with FIFA regulations
- Introduced models replicating playstyle types demonstrating proficiency in **Python, Pandas, and Matplotlib**
- Visualized findings using **correlation matrixes, histograms, and scatter plots** to identify top performing midfielders by role
- Performed **linear regression** to identify trends in decision-making with respect to age for midfielders

Food Network Project | *C, Visual Studio Code*

May 2023

- Implemented a program to find and replace missing ingredients with similar ones using **depth first search**
- Performed graph manipulation and queries on an adjacency matrix representing a recipe book
- Created a **recursive algorithm** to identify and list related ingredients up to arbitrary neighbour distance.

Skills

Languages: Python, C, Java, HTML/CSS, R

Libraries/Frameworks: NumPy, Pandas, TensorFlow, Matplotlib, ggplot,

Developer Tools: Git, Android Studio, Jupyter Notebook, RStudio, Eclipse, Latex

Other: Communication, Problem Solving, Leadership

Awards

Valedictorian

June 2022

Ajax High School

- Addressed graduating class of 2022 at convocation
- Awarded for exemplary leadership ability and academic excellence