# **Sourav Biswas**

# **Computer Science and Business Double Degree Student**

University of Waterloo, Class of 2022

# **Skills**

- Proficient: Python, Java, HTML/CSS.
- Prior Experience: Android, JavaScript, JQuery, Firebase, Scikit-Learn, Pandas, Matplotlib.

#### **Projects**

# **Algorithmic Trading**

Python, Scikit-Learn, Pandas, Matplotlib

- Implements a machine learning trading algorithm built using scikit-learn.
- Accessing historical stock prices using the Google Finance API and pandas.
- Illustrates results using matplotlib.
- Predicts stock price movements with 75% accuracy when price changes were randomized.

**Showdown** Android, Java, Firebase

- A flash math Android app built with a Firebase database.
- Users can compete against each other while viewing live results.

**Tanks** Python

- A game created with a Python GUI where users battle with tanks in a maze.
- Created an AI opponent which implements the A\* search algorithm for pathfinding.

### Experience

#### **Computer Science Club Leader**

Sir John A. Macdonald S.S.

June 2016 – June 2017

- Developed a curriculum teaching programming languages and computer science concepts.
- Improved club attendance from 50 to over 70 members by restructuring the club curriculum.
- Topics explored include HTML/CSS, JavaScript, recursion, data structures and GUIs.

#### **Engineering Outreach, Volunteer**

**University of Waterloo** 

July 2016 - December 2016

- Assisted in STEM related camp lessons and activities for campers from ages 4 to 14.
- Lessons incorporated Java, JavaScript and Python.

#### **Awards**

- **Galois Math Contest:** Placed in the top 0.5% internationally.
- **ECOO Programming Provincial Championship:** Placed top 9 out of 400 teams that initially entered this contest.
- René Descartes National Scholarship: A \$25 000 scholarship awarded based on passion for mathematics and distinguished academic standing.
- Governor General's Academic Medal: Graduated with the highest average across all grade 11 and 12 courses out of a high school graduating class of 250 students.
- Offered a Schulich Leader Scholarship: An \$80 000 scholarship offered by Western University based on academic excellence, leadership and passion for STEM related fields.