# NATHAN PROBERT

• 19 Littleleaf Crescent, Markham Ontario, L3S 4E8

J 647-871-1731 ■ nathanprobert@rogers.com ♠ github.com/Proby-8

# Education

University of Guelph, Ontario

Bachelor of Computing, Honours Computer Science, Business Economics Minor

September 2022 - May 2027

- Current GPA: 4.0/4.0 (91.2% cumulative average)
- Received \$3,000 entrance scholarship

## Technical Skills

LanguagesFrameworks and LibrariesDeveloper ToolsPython, Java, C, HTML,<br/>CSS, JavaScript, KotlinTensorflow, NumPy, pandas, FFmpegGit, Visual Studio, Android Studio

Work Experience

# Markham District Baseball Association

Markham, Ontario
June 2017 - Present

Umpire

• Responsible for officiating games to provide a fair and safe environment for participants

• Communicate effectively with players and coaches, often in dynamic and high-stress situations

Umpire Mentor June 2022 - Present

- Provide newer umpires with leadership and support to help them become more confident umpires
- Oversee and provide guidance to junior level umpires, while evaluating their performance
- Collaborate with the Umpire in Chief to assign umpires to games based on my evaluations of their skills

# **Ontario Minor Hockey Association**

Markham, Ontario
October 2018 - Present

Referee

- Officiate hockey games and communicate with coaches to ensure games run smoothly
- Work as a team with other referees to make critical, time-sensitive decisions while under pressure
- Gain the respect of participants by displaying a confident and professional demeanour

### Volunteer Experience

# York Region District School Board

Markham, Ontario

Tutor, Legacy Public School

January 2020 - March 2020

- Tutor the fundamentals of mathematics to young students at my previous elementary school
- Adapt to each unique student to provide instruction tailored to their individual learning styles

Student Athletic Association Treasurer, Markham District High School

September 2020 – June 2022

- Maintain a detailed budget for the organization, track and analyze actual revenues and expenses
- Train and mentor future treasurer to ensure a smooth and seamless transition

# **Projects**

# Hockey Challenge Picker | Python, Tensorflow, pandas, NumPy

? tims-picker

- Provides the statistically best choice for which players will score a goal in the Tim Hortons NHL Hockey Challenge
- Pulls data from existing websites to obtain a list of possible player choices each day
- Gathers and records statistics with pandas and NumPy to train the machine learning model with up to date information
- Uses Python's Tensorflow library to build an AI model that predicts goal scorers using multiple unique statistics
- Uses this information to predict who will score a goal, current accuracy of 34% (current global leader 33%)

#### Wordle Solving Bot | Java

wordle-solver

- Analyzes a dictionary of possible words to generate the statistically best guess for the popular word game Wordle
- Dissects each word by letter and formulates guesses that eliminate as many alternate words as possible
- Compares these possible guesses and selects the word with the highest relative popularity
- Correctly solves the Wordle in an average of 3/6 guesses

# Multipurpose Discord Music Bot | Python, FFmpeg

discord-music-bot

- A Discord bot that plays music in voice channels through integration of FFmpeg
- Supports importing of Spotify playlists by utilizing Spotify's API
- Allows full control of all music functions through easy to understand and use discord commands
- Includes features such as tic-tac-toe against other users, as well as the bot itself, with decision-making powered by AI