ROBERT CIBOROWSKI, **COMPUTER SCIENCE STUDENT**

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Languages: Python, C++, C, GLSL, Java, Javascript, HTML, MySQL, R, English, Polish
Frameworks: TensorFlow, Pandas, NumPy, AWS, OpenGL, OpenAL, OpenCV, Flask, React, Git, SDL
Platforms and IDEs: Windows, Linux, MacOS, Android, Visual Studio, Pycharm, IntelliJ IDEA, Android Studio

Education

COMPUTER SCIENCE AND STATISTICS - University of Toronto **3RD YEAR**

- Is currently in third-year studies of computer science at the University of Toronto, St. George campus.
- Doing a Computer Science Specialist with a focus in Artificial Intelligence & Minor in Statistics.
- Current GPA: 3.8/4.0

Work Experience

MACHINE LEARNING INTERN, Rules Cube – NLP, TensorFlow, Python, AWS **2020-PRESENT**

- Optimizing a Transformer model which performs natural language processing. Model is built using TensorFlow and Python, which annotates text from an image.
- Used AWS EC2 for interfacing the ML model with a mobile app.
- Wrote scripts which upload dataset entries to an AWS DynamoDB.
- Led a team of 10 annotators to create a dataset of 5,000 images.

PRODUCT SPECIALIST – APPLE SHERWAY GARDENS **2019-2020**

- Used broad knowledge of products to provide solutions to customers alongside teammates.

Projects

PUMPBOT – Python, TensorFlow, Numpy, Pandas **2020**

- Designed and trained a TensorFlow machine learning model with convolutions, LSTM layers and a neural network which detects and trades during Pump & Dump schemes using cryptocurrency data.
- Used NumPy and Pandas to generate and process datasets for models.
- Analyzed stock price and volume data as well as their standard deviations and rolling averages.
- Project has received over 1000 clones on GitHub.

DERMABOX – Python, TensorFlow, REACT **2020**

- For a hackathon, used TensorFlow and OpenCV in Python to create a machine learning model which detect Acne Vulgaris and Atopic Eczema using images of patients' skin.
- Built the interactive GUI for the application using REACT and database using MySQL.
- Ran the machine learning models on a Google Coral hardware accelerator using TensorFlow Lite.
- Was a top 5 project at the hackathon.

NEO-ZERO – C++, OpenGL, Python **2016-2020**

- Created this Kickstarter funded, C++ and Python based 3D game with the help of Git.
- Contributed to the multithreaded and open-source engine, "Project Aela", using Git, OpenGL, OpenAL, SDL, FreeType and Zlib. Created a renderer, compressed audio loader & player, animation system, event framework, menu system and resource manager.
- Project obtained over $1,800 CAD in funding.

BLOCKCONTRACTS (Open Source) – Python, Flask, TensorFlow **2020**

- Built a custom Blockchain solution based on SHA256 as well as a TensorFlow to secure corporate contracts.
- Built an application in Flask to interact with the Blockchain.

THE IRON BEARS ROBOTICS – Java **2016-2018**

- Was a Java programmer, and later a mentor, to this secondary school FRC (FIRST robotics competition) team.
- Worked on sensor communication, motor driving, human control, camera stream output and a proportional-integral-derivative automation system in the Java programming language using Git.

Mathematics and Machine Learning Courses

- Completed: MAT135+136 (Calculus I), MAT235 (Calculus II), STA247 (Probability and R), MAT223 (Linear Algebra I), CSC165 (Mathematical Reasoning for Computer Science), CSC240 (Enriched Introduction to the Theory of Computation)
- In progress: CSC311 (Intro to Machine Learning), CSC413 (Neural Networks & Deep Learning), CSC263 (Data Structures & Analysis), STA248 (Statistics for Computer Science), CSC209 (Systems Programming)

Other Projects/Experiences

- **C tutoring:** tutored a high school student in the basics of the C programming language.
- **Website:** Designed and built www.robertciborowski.com using HTML, CSS and JavaScript.
- **Linux-based drone:** Led the development of the hardware and software of a Linux-based drone with a camera running on an ODROID in the Martingrove Collegiate Institute Computer Science Club.
- **C-based game console:** Created a C-based game console prototype using Linux, a breadboard, a monochrome screen, buttons and speakers. Recreated Google Chrome's Dinosaur Game on the console.
- **Video game addons:** Created addons for the game *Sid Meier's Civilization V* using Python and XML, one of which was featured in the "Most Popular Items in the Past Week" on Steam for three weeks in a row.
- **Volunteering:** served at Toronto's Wesburn Manor Long-Term Care as a musician and church-service helper.