

# Mark Halka

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github.com/markhalka/

## EXPERIENCE

### **MathWorks, Waterloo** - *MATLAB Student Ambassador*

FEB 2020 - PRESENT

- Using my skills in MATLAB and machine learning, I host workshops for undergraduates

### **Mathnasium, Mississauga** - *Mathematics Tutor*

SEPT 2018 - APRIL 2020

- I've taught topics such as calculus, advanced functions, and statistics with excellent reviews

### **Previous Experiences:**

- I've designed and taught a course on Python at the Sylvan Learning Centre
- With over five years of tutoring experience, I've developed exceptional communication and math skills

## EDUCATION

### **University of Waterloo** - *B.Sc. in Computer Science (Expected)*

- I was awarded \$20,000 in scholarships, with a 97% admittance average, and multiple top 1% scores in math and computer science competitions

## PROJECTS

### **Read-the-room** - *Built an app that finds what percentage of students are disengaged during online lectures*

- First place in a University of Toronto Hackathon, and winner of "Most Creative use of MATLAB"
- Technologies: MATLAB, CNN's, C#, Unity, TCP/IP, Computer Vision

### **SwarmAlgorithms** - *A collection of algorithms for distributed, multi-agent systems*

- My research includes: localization, dynamic task allocation, collective perception and more
- Technologies: C++, Distributed systems, Reinforcement Learning, C#

### **CodePrentice** - *As project manager I oversaw the implementation of documentation for TensorFlowTTS*

- Technologies: Keras, CNN's, LSTM's, Text-to-speech, TensorFlow

### **DiveVR** - *An online app that uses machine learning to teach science as effectively as possible*

- Technologies: Azure, Python, Scikit-learn, Recommender systems, C#

### **VR System in C++** - *A project I built from scratch in C++, it allows you to play any game in VR*

- Technologies: C++, OpenCV, Kalman Filters, Computer Vision, Java, Android

## SKILLS

**Fluent:** MATLAB, C++, Python, Java, C#, C

**Proficient:** TensorFlow, PyTorch, R, JavaScript