

# ETHAN JOSEPH

COMPUTER SCIENCE STUDENT

## # CONTACTS

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## ABOUT ME

Fast learning and motivated computer science student with a passion for artificial intelligence. Seeking an internship position for summer 2020 where I can leverage my problem solving skills and knowledge in machine learning.

## AWARDS

- Eagle Scout
- Rensselaer Leadership Award

## TECHNICAL SKILLS

**Languages:**  
Python, C++, C, Dart, Java, JavaScript, HTML, MATLAB, MIPS, some x86

**Tools:**  
Git, Amazon AWS, IDA, Sublime Text 3, PyCharm, IntelliJ IDEA

**Libraries and Frameworks:**  
PyTorch, TensorFlow, NumPy, Bokeh Matplotlib, Pandas, Node.js, Flutter

**Platforms:**  
Windows, Linux, Android

## CLUBS AND HOBBIES

- Outing Club
- RPISec
- Tennis Club
- Making Things
- Guitar
- Video Games

## EDUCATION

- Undergrad CS**  
Expected: 2023  
**Rensselaer Polytechnic Institute:** Troy, NY  
**GPA: 3.83**, Relevant Coursework: Data Structures, Foundations of Computer Science, Computer Organization, AI and Society
- High School**  
2015-2019  
**San Francisco University High School**  
**GPA: 3.80**, Tennis Team Captain, Science Olympiad Founding Member

## EXPERIENCE

- NLP Research**  
Spring 2020  
**Dr. Mei Si:** RPI: Troy, NY  
Researching data-to-text generation with Professor Mei Si, with the goal of being able to turn tabular data into rich human readable summaries. Using transformers and other state-of-the-art NLP technologies.
- Research Internship**  
Summer 2018  
**Deep North AI:** Foster City, CA  
Worked with an engineer to develop and train facial recognition models for the WIDER Face Challenge 2018, scoring in the **top 3 globally**. Used Darknet YOLO and MATLAB for evaluation.

## PROJECTS AND AI

- SmartRider**  
2020  
**RPI Shuttle, Bus, and SafeRide App**  
Project manager for a team of 15, leading a new project in the Rensselaer Center for Open Source. SmartRider will be the all-in-one transportation app for the RPI community. Using Google's Flutter framework.
- futureMAG**  
2019  
**AI Generated Magazine**  
Used a gpt-2 neural network finetuned on articles scraped from various online publications to create a fully automated publication: [medium.com/futureMAG](https://medium.com/futureMAG) Improved my skills in **NLP and utilizing web APIs**.
- AIART**  
2019  
**AI Generated Art Project**  
Tested various concepts in AI Art Generation, including Generative Adversarial Network image generation, style transfer, and neuron visualization. Gained a deeper understanding of **GANs and PyTorch**.
- WorldWide**  
2019  
**an Exploration in the History of Web Design**  
Started out as a project to learn more about web dev, ended as my final project for an English class. Acquired skills in **web development and javascript**. [sirmammingtonham.github.io/worldwide](https://sirmammingtonham.github.io/worldwide)
- AlphaStone**  
2018  
**Hearthstone AI Agent**  
My first coding project. Adapted DeepMind's AlphaZero algorithm to train an AI to play the card game Hearthstone from no prior knowledge of the game. Learned a lot about **Python, reinforcement learning, neural networks, git, and debugging**.