

# 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++, Java, JavaScript, HTML/CSS, MATLAB, some x86

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

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

**Platforms:**  
Windows, Linux

## CLUBS AND HOBBIES

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






## EDUCATION

- Undergrad CS**  
Expected: 2023  
**Rensselaer Polytechnic Institute:** Troy, NY  
Current Coursework: Data Structures, Calculus II, Physics I, AI and Society.
- High School**  
2015-2019  
**San Fransisco University High School**  
GPA: 3.80, Tennis Team Captain
- Machine Learning**  
2017-Present  
**Self Study - Online Courses and Projects**  
Courses include: Coursera Machine Learning, Practical Deep Learning for Coders, and Deep Reinforcement Learning

## EXPERIENCE

- 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. Learned a tremendous amount about **object detection, time management, collaborative coding, and evaluating machine learning models.**

## PROJECTS AND AI

-  **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 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
-  **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.**
-  **3d Printed Guitar**  
2016-2017  
**and Amp**  
3d printed an electric guitar body with sound responsive leds. Used a Raspberry Pi for led control and accompanying amp. Gained experience in **detailed work and using linux.**