

Joseph Ryan

✉ JoesphRyan@utexas.edu • 🌐 JosephRyan.me • 📱 P1n3appl3

Experience

FIRST Robotics

- *Team Lead/Head Programmer* *August 2015–June 2017*
 - Directed 10 developers on multiple software projects
 - Managed long term projects as an elected board member
 - Used version control, continuous integration, and unit testing with Java, C++, and Python
 - Integrated libraries such as OpenCV for autonomous vision tracking

Science Math Interactive Learning Experience (SMILE)

- *Teacher and Counselor at STEM summer camp* *July 2016 - August 2017*
 - Mentored elementary and middle school students during week long courses
 - Taught basic circuitry, microcontroller programming (Arduino-C++), Android app development (Java), and robotics (C++)

Projects

- **Genetically Evolving Neural Network** C++, Python
 - Implemented a general purpose machine learning algorithm for real time control theory problems
 - Used a blend of neural networks and genetic algorithms for competitive training
- **The Elements of Computing Systems** HDL, ASM, Jack, Python
 - Completed online course on computer architecture, assembly, and compilers
 - Course projects included implementing a CPU simulated in HDL, an operating system, a compiler, a virtual machine translator, and an assembler
- **Handwritten Character Recognition** Python
 - Implement general purpose machine learning algorithm for real time applications
 - Used a blend of neural networks and genetic algorithms for competitive training

Education

- **University of Texas at Austin - Cockrell School of Engineering** **Austin TX**
 - Pursuing BE in Electrical and Computer Engineering* *2017–2021*
- **William G. Enloe High School** **Raleigh NC**
 - AP Scholar with Distinction* *2013–2017*

Technical Skills

- **Programming Languages:** Proficient in Python, C++, and Java
- **Other:** Proficient in Git, Markdown, JUnit, and Arduino with basic ability in OpenCV, CMake, Gradle, Linux, and \LaTeX