

Jacob C. Ruff

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Academics

Texas A&M University, *College Station, TX*
Graduating: May 2022
In progress, Bachelor of Science - Electrical Engineering, GPA 4.0
Minor in Computer Science

Skills

Proficient Programming Matlab, Python, C/C++
Significant Linux Experience

Employment

Johns Hopkins Applied Physics Lab, *Laurel Maryland* May 2020 - December 2020
Digital Signal Processing Intern
Adapted model of recieved vs transmitted radio symbol rate to linear splines for real time conversion
Improved Simulink model of a radio's carrier and code loops making it HDL synthensizable
Produced a tutorial for installing and compiling radio software

Paragon Innovations, *Richardson Texas* Sept 2017 - Dec 2017, Dec 2018
Engineering Intern
Verified circuit boards functionality and assured there was no electric shorting.
Purchased inventory based on project and individual engineers' needs
Assembled various prototype boards and products

University of Texas at Dallas, *Richardson, TX* June 2017 - August 2017
High School Intern with the Science, Engineering and Education Center
Led creation of instructional manuals for teaching kids how to program
Assisted in instructing a beginner's Python class.

Activities

Ultrasound Research, *Texas A&M University* May 2021 - Present
Researcher
Investigating methods for 3D reconstruction of spine
Working on Bachelor's thesis paper ??

HowdyHack Hackathon, *College Station TX* Sept 2019
Team Leader
Produced a phone app that communicated with an Arduino over Bluetooth to control a circuit
Wrote Arduino C code that handled serial input communicated via bluetooth

Computer Science Competitions, *College Sation TX*
Competitor
Participated in TAMU Fall 2018 and Spring 2019 competitions
Participated in the Norht American Invitational Programming Competition
Competitons improved problem solving ability utilizing algorithmic design