

Shreepa Parthaje

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EDUCATION

University of Virginia, Charlottesville, VA August 2021 - Present
B.S. in Computer Science with a minor in Data Science. Expected Graduation: 2024. GPA: 3.67

Thomas Jefferson HS for Science and Technology, Alexandria, VA August 2017 - June 2021

Relevant Studies: Multivariable Calculus, Ordinary Differential Equations, Advance Math Theory, Discrete Math, Analog and Digital Electronics, Automation and Robotics, Artificial Intelligence I and II, Physics I and II, Data Structures and Algorithms I, Computer Systems and Org I

SKILLS

- C++, Python, MATLAB, Java, C, Ildb, C#, Git/GitHub, Unix/Linux ecosystems, CLI usage (Bash), MS Office, Swift, Node.js, Unity, Tensorflow, Keras, Django, PostgreSQL, SQL, Flask

EXPERIENCE

Software Engineer, **UVA Solar Car Team**, Charlottesville, VA October 2021 - Present

- Develop C++ embedded systems to leverage CAN bus for comms between ECU and motor boards

Flight Software Lead, **TJREVERB (CubeSat)**, Alexandria, VA October 2019 - June 2021

- Spearheaded a team of 7 developers to meet NASA's deadlines for the 2U CubeSat
- Mentored a underclassmen team teaching development principles (e.g. continuous testing and version control)
- Integrated Python flight software with Iridium and SATT-4 radios and drafted CONOPS

Programming Lead, **TJHSST Underwater Robotics**, Alexandria, VA October 2018 - June 2020

- Led a team of 6 people to build Python software to pilot an underwater robot remotely with Xbox controllers
- Implemented computer vision algorithms in C#/ .NET to detect objects in water

Engineering Intern, **Phone2Action**, Rosslyn, VA July 2019 - August 2019

- Built 3D C# VR application with Unity integrating voice activation with IBM Watson in a team of 4
- Ran code review sessions and tracked development cycle through GitHub Issues and Kanban boards
- Lead frequent meetings with the VP of product and demoed the product at a large company event

Compute Cluster Sysadmin, **Thomas Jefferson HS**, Alexandria, VA February 2018 - June 2019

- Created Ansible plays to automatically maintain machine learning packages on over 50 compute cluster nodes
- Worked primarily with command line interface on machines running Linux distros (Ubuntu and CentOS)
- Setup Cisco networking switch to connect a 2 node CI (continuous integration) server to the internal network

PERSONAL PROJECTS

Ascent - A Vertical Take-off and Landing Aircraft

- Simulated and tuned aircraft's PID control loops and Kalman Filter in MATLAB
- Wrote C++ flight software with PlatformIO for a Teensy flight computer

MigosNET - Lyric Generation with Neural Networks

- Designed a LSTM neural network with Tensorflow/Keras that generates Migos (a music group) lyrics

Othello AI

- Created heuristic algorithms along with non-deterministic algorithms to play Othello moves within 5s
- Implemented algorithms for fast game calculations with binary operations using bit boards (bit arrays)

Opener - A macOS Keybinding Utility

- Released an open-source application for macOS with 50 downloads, implementing ideas from i3wm for Linux