WYATT JORDAN

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SUMMARY

Computer Scientist seeking a position leveraging machine learning and robotics for sustainability in consumer markets.

SKILLS

- **Proficient in...**
- Python, Matlab, C++, C#, LabVIEW, XML
- Pytorch and Tensorflow
- Linux, Docker, ROS,
- Git, code documentation and review

- **Basic skills in...**
- Keras and Mathematica
- Java, HTML, CSS, Simulink
- Electrical design for mobile platforms
- Distributed computing

EXPERIENCE

Computer Scientist / Army Research Laboratory - Aberdeen, MD *05/2019 - Current*

- Developing ROS Docker containers for real-time sensor processing via a convolutional neural network (this CNN).
- Labeling data and writing Python processing scripts for an object pose detection CNN (publication in process).
- Developing neural networks for distributed GPU training testing on DGX stations and editing networks in Pytorch.
- Automating graphical Python calibration programs for ROS autonomy stacks enabling platforms to recalibrate live.
- Configuring distributed computing Linux networks and sensors in ROS with precision time protocol synchrony.
- Modifying ROS/C++ sensor drivers requiring additional functionality or compatibility with our systems.
- Configuring and troubleshooting environment costmaps and navigation in ROS/C++ autonomy stacks.

Youth Director / Bel Air Church of the Nazarene - Bel Air, MD *05/2019 - 08/2019*

- Organized various events and service trips for students while aiding in the search for a full-time youth pastor.
- Managed weekly gatherings with ~40 students in attendance and delegated adult volunteers as needed.

Robotics Team Lead & Main Developer / Grove City College - Grove City, PA *08/2018 - 05/2019*

- Supervised a team of multi-disciplinary students in a fully autonomous robotics platform design cycle. Effectively distributed tasks while maintaining long-term deadlines and developing an overwhelming majority of the code.
- Coded an embedded Linux computer to integrate various sensors including an RPLidar in ROS (github repo).
- Developed, tuned, and tested control loops on embedded systems integrated with an armhf computer.

Oak Ridge Research Intern / Army Research Laboratory - Aberdeen, MD *05/2018 - 08/2018*

- Designed a ROS package for tracking multiple moving objects solely with LIDAR data in unknown environments.
- Dealt with the Point Cloud library for 3D data structures and computational methods such as ray tracing.
- Implemented a Kalman filter in ROS/C++ for probabilistic object tracking, matching, and prediction.

Technical Field Representative / Saha Global – Tamale, Ghana *12/2016 - 01/2017*

- Proposed and installed a solar power station for an off-grid village outside Tamale, Ghana.
- Aided in constructing the solar system, training the local women who currently operate it, and educating the local village concerning the station's functions.

Student Engineering Apprentice / Army Research Laboratory - Aberdeen, MD *05/2014 - 08/2015*

- Safely automated femtosecond laser ablation and shielding, microscope imaging, and electron backscatter diffraction in a scanning electron microscope across networked sensor computers with LabVIEW.
- Significantly improved LabVIEW code for automating external laser milling, image capturing, and camera autofocusing tasks. Automated tessellated image capture and recombination for high-resolution images.

CERTIFICATIONS AND EXTRAS

Coursera Deep Learning Specialization / Coursera**,** Pittsburgh, PA / Verification *10/2020*

- Completed five courses on neural networks, hyperparameter tuning, regularization, optimization algorithms, CNNs, project structuring, and sequence models / natural language processing. Coded in TensorFlow and Keras.

National Council of Examiners for Engineering and Surveying (NCEES) / NCEES**,** Towson, MD / Verification *06/2019*

- Completed the electrical engineering Fundamentals of Engineering (FE) exam as a pre-requisite for obtaining a professional engineering license. Also called Engineer in Training (EIT) certification.

FANUC Corporation / Grove City College – Grove City, PA / Verification *11/2018*

- Completed the FANUC HandlingTool Operations and Programming certification for manual control and logic programming of industrial FANUC automation robots.

Personal Embedded Systems Projects / Grove City College – Grove City, PA *07/2015 - 05/2018*

- Designed, assembled, and coded microcontroller PCBs for long exposure light painting photography (github repo).
- Spent my spare time as an undergraduate student working in the senior design lab on various personal projects.

FIRST Robotics FRC Team 3941 / FIRST Robotics – Aberdeen, MD *08/2011 - 05/2015*

- Oversaw the electrical design team and qualified for world championship three times out of four.
- Coordinated final assembly and integration of various electrical and mechanical subsystems. Gained considerable programming (LabVIEW and C++), electrical design, mechanical design, machining, and assembly experience.

EDUCATION

Grove City College - Grove City, PA *05/2019*
Bachelor of Science: Electrical Engineering w/ Minors in Computer Science and Robotics

Magna Cum Laude (3.81), Trustee Fellow Scholarship