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# **FDUCATION**

# PENNSYLVANIA STATE UNIVERSITY | B.S IN COMPUTER SCIENCE

Expected May 2021

College of Engineering | University Park | State College, PA | GPA: 3.1 / 4.0

## SKILLS

Python < Preferred > // Java // Node.js // JavaScript // C // C++ // Linux // OpenCV // Tensorflow

# **WORK EXPERIENCE**

### LUNAR LION | SOFTWARE ENGINEERING INTERN May 2018 - present | Research Center C, State College, PA

- Created the communication system for Peroxide Engine Test Stand 2 to send telemetry & command data between Ground Control Station and Guidance, Navigation, & Control subsystem using ZeroMQ.
- Automated testing procedure by adding flight profile functionality and debugged the old UI of Ground Control Station.
- Implemented softkill to prevent hazard by processing thermocouple, pressure transducer and load cell data.
- NASA PA Space Grant Scholarship.

### **DULANEY HIGH SCHOOL** | IT ASSISTANT

Aug 2016 - May 2017 | Lutherville-Timonium, MD

- Provided troubleshooting of any computer problems the school encountered.
- Fixed nonfunctional computer parts and software, reimaged operating systems, and setup router network connections.

# PROJECTS AND ACTIVITIES

# WALT DISNEY CORPORATE PROJECT TEAM | NITANNY DATA LAB Aug 2017 - Present | State College, PA

- Created retrieval based chatbot with personalities based on Disney movie characters.
- The Chatbot was proposed to the Director and Manager of the Data & Analytics at Walt Disney Animation Studios, which received promising continuation of the project.

## STUDENT SPACE PROGRAM LABORATORY

Feb 2017 - Present | State College, PA

- Student Training Program: Wrote the teensyduino code which collected, processed, stored, and transmitted data from the rocket that was launched to 500 meters above sea level. | Feb Apr
- G-Chaser: a joint mission between NASA, JAXA, and University of Oslo to study solar flares by launching rockets into the ionosphere.
- Worked under the Command and Data Handling Subteam contributed to the UART Class by debugging and configuring the termios bit flags based on the known hex configuration values. | May Present

### UNMANNED AERIAL SYSTEM | COMPUTER VISION SUB TEAM

Aug 2017 - Present | State College, PA

- Created drone's software to detect targets on the ground given the camera feeds.
- Extracted the relevant areas of interests in the images using OpenCV's saliency algorithm.
- Building Convolution Neural Network to categorize the potential target images.

## **SOFTWARE MENTOR** | VEX ROBOTICS CLUB OFFICER

May 2016 - May 2017 | Timonium, Maryland

- Trained 10 programmers in the club and provided troubleshooting of any software issues.
- Taught PID control algorithm, autonomous algorithm, and velocity control system to the members.
- Successfully brought a team to 2017 Vex Robotics World Championship.

## PERSONAL PROJECT

### FACEBOOK AI CHATBOT | RESPONSE GENERATION & SENTIMENT ANALYSIS

July 2017 - Present

- Utilizes Messenger's UI to generate conversations with users and perform sentiment analysis on each utterance.
- Using Sequence to Sequence model with attention decoder to generate response based on the previous utterance of the user input.
- The neural network is written in python with Tensorflow using the starter code from Stanford CS 20SI's assignment, and the backend is written in node.js with Facebook Chat API.