Bryon F. Catlin III

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EDUCATION

Florida Polytechnic University GPA: 3.96 — Lakeland, FL
Bachelor of Science: Computer Engineering, President's List — May 2025
Related Coursework: Autonomous Robotics, Electric & Hybrid Vehicles, Computer Vision, Control Theory, Digital Signal Processing

Florida SouthWestern State College GPA: 3.9 — Punta Gorda, FL
Associate in Arts, Dean's List — May 2022
Related Coursework: Calculus I/II, Introduction to Computer Programming (Python), Macroeconomics

PROFESSIONAL EXPERIENCE

Overhead Intelligence | *Associate Computer Engineer* | Lake Wales, FL — August 2024 – Current
- Developed embedded systems software and programmed in C/C++
- Maintained pipeline tools, reducing processing turnaround time by over 15x
- Ensured reliability of photogrammetry processing pipeline and codebase
- Processed and delivered over 200 km^2 of processed orthophoto map data

Florida Polytechnic University | *Research Assistant* | Lakeland, FL — January 2025 - Current
- Simulated electric autonomous vehicle models in changing environments
- Analyzed steady state error of vehicle wheel rotation controllers to perform path following
- Developed LiDAR post-processing programs and researched point cloud implementation

Overhead Intelligence | *Computer Hardware Engineer Intern* | Lake Wales, FL — October 2023 – August 2024
- Developed orthophoto processing pipeline to process 1000+ images in less than one hour, reducing processing costs by 93%
- Deployed AWS cloud development tools such as AWS API Gateway, Cloudwatch, EC2, Elastic Beanstalk, Lambda, and SQS
- Increased productivity by 70% through developed automated processes such as Linux, scripting, C, Python, and git
- Designed Printed Circuit Boards and performed circuit analysis/calculations
- Professional skills: Documentation, technical writing, cybersecurity, teamwork, communication, and field testing

Ultra-Tech Enterprises, Inc. | *Computer Engineering Intern* | Port Charlotte, FL — May 2023 – August 2023
- Automated testing processes through scripting and pipelining to increase production & reliability by 80%
- Engineered embedded systems solutions using SPI, I2C, and Serial Communications

SKILLS & CERTIFICATIONS

Certifications: FAA Small UAS – Part 107 License
Programming: *Advanced:* C, C++, AVR C, Python, JavaScript, Verilog/VHDL, MATLAB, Kernel Modules *Intermediate:* CUDA, C#, Rust
Software: AWS, OpenCV, Linux, KiCAD, HSpice, Simulink, Solidworks, OnShape, Microsoft Office Products, HTML, CSS, Git, Jira
Hardware: Circuit/PCB design, soldering, repairing/replacing electronic components

PERSONAL EXPERIENCE & PROJECTS

Phoenix Racing Team Lead: Solar Powered Endurance Vehicle — Fall 2022 – Fall 2024
- Led a subgroup to develop a solar vehicle placing higher than 70% of competition at Formula Sun Grand Prix
- Completed circuit diagrams and efficiency calculations
- Designed, planned, and assembled solar array setup for optimal voltage/current output

Motion Controlled Quadcopter (AVR C) — Spring 2024
- Developed embedded C flight and motor controller
- Utilized control system feedback loops to stabilize quadcopter in flight
- 3D printed and designed mounting components and propellers

Discord Bot: Javascript — Fall 2023
- *Natural Language Processing:* Used ChatGPT DaVinci API to autocomplete sentences
- Programmed a chat helper bot through the Discord.js API. Hosted on a raspberry pi Single Board Computer

LEADERSHIP EXPERIENCE

Rotaract International, President & Paul Harris Fellow | *Florida Polytechnic University* | Lakeland, FL — November 2022 – Current
- Communication and professionalism skills: Lead meetings and manage club roles/duties
- Raised over $5,000 in fundraised and sponsored funds
- Increased official membership and meeting attendance by 200%

Society of Hispanic Professional Engineers, VP Professional Development | *FL Polytechnic Uni.* | Lakeland, FL — June 2024 – Current
- Performed event planning, club support, promoted membership and professional development