Nicklas Stockton

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CONTACT & PROFILES

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Blue Ash, Ohio
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| nickstockton
| sputnick1124

PROGRAMMING SKILLS

Expert:
- Python
- LaTeX
- Matlab

Proficient:
- C/C++
- Bash

Novice:
- Rust

TECHNOLOGIES

Linux/FreeBSD • Unix coreutils
OpenSSH • Gnuplot • Vim
Git

INTERESTS

Machine learning
- Pandas
- scikit-learn
- PyTorch

Robotics
- Robot Operating System
- Gazebo Simulator

Computer Vision
- OpenCV

CERTIFICATIONS

- Defense Acquisition University — Science and Technology Manager Level I
- DOD Secret Security Clearance

PROFESSIONAL EXPERIENCE

Aerospace Engineer – Secret Security Clearance
AIR FORCE RESEARCH LABORATORY — WPAFB, OH
2017–Present
- Received Scientific and Technical Achievement Team Award — F-16 Auto-Strafe "Death Claw"
- Learned and modified legacy graphics library to produce custom simulated aircraft HUD symbols within three weeks
- Refactored simulation code base into separate modules, enabling both real-time simulation in full simulator as well as constructive standalone simulation
- Introduced distributed version control (Git) to track changes to and manage deployment of code base across isolated network boundaries
- Manually translated Simulink models into C++, validating correctness of code against original models

Research Assistant
UAV MASTER LABS — CINCINNATI, OH
2015–2017
- Introduced real-time simulation capabilities to the lab using ROS and Gazebo softwares, thus enabling quick develop-simulate-fly cycles
- Developed unmanned system platform for mobile autonomous landing operation using a genetically-tuned fuzzy logic controller
- Developed self-navigation autonomous quadcopter for tunnel exploration using 2-D lidar sensor and API to third party contractor code
- Integrated camera motion capture system with flight controllers for indoor autonomous flight using ROS

Research Engineer
ENGINEERING AND SCIENTIFIC INNOVATIONS, INC. — CINCINNATI, OH
2014–2015
- Improved response time by 70% of rapid fire suppression system by simplifying and optimizing computer vision routines with OpenCV
- Wrote custom utility using OpenCV to analyze cavity dynamics of hydrodynamic ram events
- Created custom programs to perform image velocimetry and droplet sizing on particle clouds

EDUCATION

Master of Science — Aerospace Engineering
UNIVERSITY OF CINCINNATI
2016–2018
- ACCEND Master's Program - Advisor: Dr. Kelly Cohen
  Thesis: Genetic Fuzzy Systems for Coupled Dynamic Systems

Bachelor of Science — Aerospace Engineering
UNIVERSITY OF CINCINNATI
2013–2017
- GPA: 3.87 overall, 3.90 in Aerospace Engineering — Dean's list
- Engineer of the Month (Dec 2015); Knowlson and Irene Byar Scholarship Recipient (Jun 2015)