Viresh Duvvuri

vireshduvvuri@gmail.com linkedin.com/in/viresh-duvvuri/ +1-509-964-5469 Seattle, WA

Portfolio: https://viresh-duvvuri.netlify.app/

Experienced Robotics Software Engineer with 5+ Years in Autonomous Systems, Flight Control, and Production Deployment

Education

2015 – 2017
Pullman, WA,USA

Washington State University, *Master of Science, Computer Science*
- Thesis Title: "Development of Baton: A Novel Precision Delivery Drone"
- Advisor: Dr. Matthew E. Taylor, Assistant Professor, Department of Electrical Engineering & Computer Science

2011 – 2015
Visakhapatnam, India

GITAM University, *Bachelor Of Technology, Information Technology*

Skills

Programming
Python, C++, React, Docker, Git, SQL, Android, OOP, Multithreading

Robotics Framework
PX4, Ardupilot, mavlink, mavsdk, pymavlink, wireshark, UAVCAN, Plotjuggler, Wireshark

Embedded Framework
RTOS, I2C, UART, SPI, CAN, STM32

OS & Version Control
Linux (bash scripting), Windows(bat files), Git, Testrails, Notion

Work Experience

11/2021 – present
Woodinville, WA, USA

Freefly Systems, *Drone Systems Engineer*
- Led cross-functional diagnostic system development achieving 85% faster issue resolution for manufacturing teams and field support through automated log analysis and tracking systems
- Built comprehensive flight control optimization suite reducing customer support tickets by 60% while enhancing payload integration capabilities across Altax and Astro drone platforms
- Streamlined production workflows and automated support processes, improving team response times by 40% and establishing robust quality assurance protocols for drone manufacturing
- Spearheaded technical crash analysis operations for enterprise clients, developing systematic root cause identification processes that reduced average troubleshooting time from days to hours
- Coordinated multi-team projects from requirements gathering through deployment, maintaining 100% project visibility and stakeholder alignment across engineering, manufacturing, and support divisions

07/2021 – 10/2022
Sarasota, FL, USA

Lumenier, *Software Engineer*
- Architected and deployed specialized PX4 flight modes including Toss-to-Launch and autonomous surveillance systems, expanding drone application capabilities by 30% for specialized industrial use cases
- Enhanced GPS-denied navigation performance by 50% through LiDAR sensor integration and advanced MAVLink/UAVCAN protocol implementation, enabling reliable operation in challenging environments
- Led collaborative development with PX4 maintainers to optimize core flight systems, improving GPS accuracy, position-hold stability, and 360° obstacle avoidance across diverse lighting conditions
- Established comprehensive firmware validation framework reducing critical bug deployment by 80% through systematic log analysis and automated testing procedures for each release cycle

08/2018 – 03/2020
York, PA, USA

York Exponential, *Robotics Research & Development Engineer, Computer Science*
- Created intuitive Human Machine Interface for collaborative welding robotics using Universal Robot platform, decreasing operator programming complexity by 50% and training time by 40%
- Developed autonomous surveillance robot prototype from concept to functional system, reducing manual security monitoring requirements by 70% through advanced computer vision and navigation algorithms