KASHISH GARG

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EDUCATION

University of Pennsylvania, School of Engineering and Applied Sciences *August 2024-December 2025*
Master of Science in Robotics *Philadelphia, PA*
Thesis Title: ***Aero-Simian: A Bio-Inspired, Brachiating-Flying Robot***

New York University, Tandon School of Engineering *August 2014-May 2018*
Bachelor of Science in Mechanical Engineering with a Minor in Aerospace Engineering *Brooklyn, NY*

SKILLS

Programming Languages	- C++, C, Python, MATLAB, Bash, Fish
Software Tools/Libraries	- ROS/ROS2, Docker, Eigen, GNU Debugger (GDB), Git, CMake Kalibr, Valgrind, OpenGL, Numpy, OpenCV, gRPC, Casadi, Optuna
Hardware Platforms and Frameworks	- STM32, ESP32, FreeRTOS, Zephyr
Hardware Design and Tools	- KiCAD, Solidworks, On-Shape

WORK EXPERIENCE

Senior Robotics Engineer – SLAM and Hardware Lead September 2025 - Present
MeshMap Labs Inc. *New York, NY*

· Building a novel handheld mapping system utilizing Lidar, Depth cameras and GPS for generating high-accurate meshes of outdoor environments
· Designing and building a Mixed Reality Headset, utilizing FPGAs for managing high data throughput and ensuring robustness
· Implementing and architecting SLAM stack for the aforementioned MR Headset

Research Project Manager November 2022 - December 2025
University of Pennsylvania - GRASP Lab *Philadelphia, PA*

· Migrated the lab quadrotor autonomy stack and other various infrastructure software packages to ROS2
· Developed a simulated LiDAR node for the Crazyflie platform to emulate autonomy stacks typically reliant on expensive hardware, enabling teaching of SLAM and Lidar Odometry
· Provided industry expertise on all aspects of robotics: software/firmware development, mechatronics design, and autonomy integration

Field / Autonomy Integration Engineer January 2021- August 2022
Exyn Technologies *Philadelphia, PA*

· Developed the C++ code for integrating Exyn's aerial autonomy stack with Boston Dynamics' Spot
· Produced, tested and delivered over 50 autonomous, aerial robots to help surveyors in the mining industry create high-accuracy point cloud scans in GPS-denied environments while working in an interdisciplinary team
· Integrated Exyn's aeriel fleet with over two dozen customers while providing on-site, technical support
· Mentored five field engineers on software development and autonomy fundamentals

Mechatronics Design Engineer April 2019- December 2020
Formerly *Houston Mechatronics Inc. //* ***Now*** *Nauticus Robotics* *Houston, TX*

· Designed, assembled, troubleshooted, tested and maintained actuators and mechanisms that allowed for Aquanaut to transform between configurations while underwater
· Led unit testing for three major subsystems within NASA's Neutral Buoyancy Laboratory
· Worked within an interdisciplinary team of engineers to realize a robotics product for commercial use