

Mitchell Kain

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Education

Boston University , MS in Mechanical Engineering, Dynamics Systems and Controls	Jan 2025
<ul style="list-style-type: none">Coursework: Robot Motion Planning, Vibrations of Complex Mechanical Systems, Soft Robotics, Additive Manufacturing, Fluid Dynamics, Thermodynamics, Static Analysis, Dynamic AnalysisGraduate Course GPA: 3.92 (3.84 all classes)	
Galvanize Inc. , Data Science Boot Camp	Mar 2020 – Jun 2020
USMC Primary Flight School , Second Lieutenant: Student Naval Aviator – Pensacola, FL	Jul 2015 – Dec 2016
<ul style="list-style-type: none">Intensive Military Leadership and Aviation training, including: Navigation, Communication (UHF/VHF), Hydraulic Systems, Engine Systems, Aerodynamics, and Military OperationsLive flight training hours in Cesna 172 and T6-Texan acrobatic aircraft and simulators	
University Of Rochester , BS in Applied Mathematics	May 2011

Relevant Work Experience

NASA Langley Research Center , Aerospace Academy Lead Research Associate – Hampton, VA	Jun 2024 – Aug 2024
<ul style="list-style-type: none">Led diverse team of including Mechanical/Electrical/Aerospace Engineers and Physicists to research new technologies and building prototypesDesigned Emergency Drone Recovery and Detection Systems to advance safety and security goals	
Galvanize Inc. , Lead Data Science Resident/Curriculum developer – New York, NY	Jun 2020 – Aug 2021
<ul style="list-style-type: none">Revised curriculum, tutorials, and lectures on Python, SQL, Statistics, Probability, Machine Learning, Computer Vision, Data Engineering Ensuring most up-to-date and accessible material was deliveredTaught Data Science and Python to 40+ Ph.D., Master's, Professional, and Veteran Students Developing the next generation of Data Science Professionals	
USMC 2nd Marine Aircraft Wing , Captain: Supply and Logistics Officer – Cherry Point, NC	Dec 2018 – Dec 2019
<ul style="list-style-type: none">Supervised all ground supply operations for 2nd Marine Aircraft Wing (2nd MAW)Ensured all financial obligations were met and maintained high readiness while mentoring 16 officers and managing inspection teams, ensuring compliance with regulations and standing orders	
USMC Combat Logistics Battalion 6 , First Lieutenant: Supply Officer – Camp Lejeune, NC	Dec 2016 – Dec 2018
<ul style="list-style-type: none">Oversaw \$77 million dollars of military equipment and controlled a \$2 million dollar budget Keeping the Battalion Mission Capable and its equipment in good repairProcured, implemented, and integrated new technologies into Battalion Procedures as Innovation Officer improving unit capabilities and developing future military procedures	

Selected Projects

Soft Robotics Competition	Mar 2024 – May 2024
<ul style="list-style-type: none">Designed/built a primarily silicone robot to win first place in an Intercollegiate team competitionCustom pneumatic actuators propelled 6-legged Soft Robot though an obstacle course consisting of turns, ramps, water, sand, and drop tests	
LiDAR Based Autonomous Hovercraft	Oct 2023 – Dec 2023
<ul style="list-style-type: none">3-fan Robotic hovercraft processes LiDAR and accelerometer data with onboard Raspberry Pi control system accounts for drift using feedback loop and potential-based path planning methodsHas future applications for uneven or amphibious environment security, mapping, or search and rescue	

Skills

Coding:	Software:	Physical:	Miscellaneous:
MATLAB	SolidWorks	3D Printing	Leadership
Python	OnShape	Rapid Prototyping	Problem Solving/Design
SQL	COMSOL	Soldering	Research
Arduino	Abaqus	Laser Cutting	LaTeX
C/C++	Simulink	Hand/Power Tools	Technical Writing