# Tam (Jimmy) Tran

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# **EDUCATION & ACADEMICS**

Princeton University

Class of 2025

- B.S.E. Candidate, Mechanical and Aerospace Engineering, GPA: (3.5)
- Certificate in Robotics and Intelligent Systems
- Relevant coursework:
  - Engineering Dynamics, Engineering Design, Mechanical Design, Differential Equations,
    Thermodynamics, Mechanics of Solids, Fluid Dynamics, Fundamentals of Materials Science,
    Automatic Control Systems, Space Flight

#### WORK EXPERIENCE

# **Undergraduate Researcher, Intelligent Robot Motion Lab**

January 2023 - Present

- Successfully built a hardware research platform (AgIRoM) for agile vision-based autonomous flight based on UZH Robotics and Perception Group's Agilicious Platform
  - The platform integrates visual-inertial odometry with depth camera mapping to provide state estimation and localization to onboard Jetson Orin NX computer
- Working in a team to develop a real-time navigation policy for autonomous flight in unknown changing environments
- Interned Full-Time during Summer 2023

# **EXTRA-CURRICULAR ACTIVITIES AND PROJECTS**

# **Drone Team Lead, Princeton Robotics Club**

September 2021 - Present

- Led a small team that successfully designed and built a modular autonomous vision-based quadcopter platform
  - Able to detect 'hand gestures' picked up by an onboard camera via computer vision algorithms and interpret them as commands, such as taking off.

## Software and Electronics Lead, MAE 322 Mechanical Design Course

Fall 2023

- Worked in a team to design and manufacture a Search and Rescue Robot
  - Led the software and electronics subteam to become the first team in course history to complete the course fully autonomously
  - Aided with chassis component CAD design and physical manufacturing

## **SKILLS & PERSONAL INTEREST**

- Relevant Skills:
  - o Computer skills: Python, MATLAB, Simulink, ROS, Linux, PTC Creo, Fusion360, AGI STK
  - Electronics: Soldering, Flight Controllers (Betaflight, PX4), Raspberry Pi, Jetson Orin NX
  - Rapid prototyping: Laser cutting, 3D printing
- Interpersonal:
  - o Active Listener, Adaptable, Leadership, Proactive
- Languages:
  - English (fluent/native), Vietnamese (fluent/heritage), Mandarin (intermediate)
- Personal Interests:
  - Princeton Men's Division Ultimate Frisbee, Rock Climbing