Tam (Jimmy) Tran

LinkedIn: www.linkedin.com/in/tam-jimmy-tran
Portfolio: https://jt7347.github.io/
Email: jimmytatr21@gmail.com
Phone: (+1) 781-952-4668
[U.S. CItizen]

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:
  - Automatic Control Systems, Engineering Dynamics, Fundamentals of Materials Science, Differential Equations, Thermodynamics, Aerospace Structures, Fluid Dynamics, Space Flight, Engineering Design, Mechanical Design

---

WORK EXPERIENCE

Robotics Software Intern, Pliant Energy Systems — May 2024 - August 2024

- Worked on software stack for C-Ray, a robotics platform designed to traverse wet environments (sea, beach, ice) using undulating fins
- Projects I completed:
  - 3D sonar SLAM (Simultaneous Localization and Mapping) pipeline
  - MOOS driver integration for sonar sensor (MOOS is a robotics middleware analogous to ROS, developed by MIT for marine autonomy)
  - Communications pipeline to broadcast data to a satellite server
- Programmed with C++, MOOS, ROS, and Python

Undergraduate Researcher, Intelligent Robot Motion Lab — January 2023 - Present

- Built AgIRoM: a UAV research platform for agile autonomous vision-based flight based on UZH Robotics and Perception Group's Agilicious Platform
  - Uses visual-inertial odometry with stereo depth for localization and planning
- Implemented a depth-based motion planner pipeline with Agilicious' base platform, which was successfully demonstrated in action via integration with an existing planner method
- *Interned Full-Time during Summer 2023*

EXTRA-CURRICULAR ACTIVITIES AND PROJECTS

Drone Team Lead, Princeton Robotics Club — September 2021 – May 2023

- Led a small team that successfully designed and built a modular autonomous vision-based quadcopter platform that is controlled via hand gestures picked up through computer vision

---

SKILLS & PERSONAL INTEREST

- Relevant Skills:
  - *Computer skills: Python, ROS, C++, Linux, Docker, PTC Creo, Fusion360, MATLAB, Simulink*
  - *Hardware: Flight Controllers, Jetson Orin, Motor Controllers, Stereo Depth, LiDAR, Sonar*
  - *Rapid prototyping: Laser cutting, 3D printing, Soldering, Machine Shop*
- Interpersonal:
  - *Active Listener, Adaptable, Leadership, Proactive*
- Languages:
  - *English (fluent/native), Vietnamese (fluent/heritage)*
- Personal Interests:
  - *Captain of Princeton Men's Division Ultimate Frisbee, Rock Climbing*