Jeongyun Jeong

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SUMMARY OF QUALIFICATIONS

- Rapid self-learner with a knack for mastering new skills and technologies, including VR/AR.
- Experienced in leading multiple projects simultaneously, with effective time management.
- Extensive practical knowledge and experience in manufacturing processes (Carbon fibre and fibreglass layups, CNC machining, laser cutting) and highly proficient in 3-D printing.
- Advanced proficiency in design and simulation software programs including: SolidWorks (with CSWP) , Fusion 360, Blender, ANSYS (FEA), MATLAB, Multisim, Simulink and KiCAD.
- Proficient in Microsoft Office Suite (Word, Excel, PowerPoint) for through documentation and presentation.

EDUCATION

Bachelor of Engineering (B.Eng.): Mechatronics Engineering. *Sep 2020 – Apr 2025*
Toronto Metropolitan University, Toronto, ON

CAREER

Undergraduate Research Assistant *Mar 2022 – Present*
MIMS LAB, Toronto Metropolitan University

- Developed a UV-mapped image texture and 3D modeling of downtown Toronto buildings and a plane cockpit for a VR/AR flight simulation project, enhancing realism and immersion using Blender and Unreal Engine4.
- Led product development and resolved critical design constraints during the finalization phase of a project, ensuring functionality and design integrity.
- Worked on a project focusing on a ground taxing simulation for a plane using Unreal Engine 4

EXTRACURRICULAR EXPERIENCE

Payload and Payload Gripper Lead, TMet Aero Design (TMAD), TMet University, Toronto, ON. *Sept 2024 – present*

- Designing a payload and minimalistic payload gripper which grab autonomously and carries the payload while a UAV flying

Team Manager, TMet Aero Design (TMAD), TMet University, Toronto, ON. *July 2023 – August 2024*

- Spearheaded financing strategies, event coordination, and tutorial planning, ensuring efficient resource allocation and enhanced team learning.
- Assisted in acquiring sponsorships, securing over $4000 CAD in essential materials and components for the project.
- Oversaw material procurement and preparation, guaranteeing timely availability of resources for project execution.
- Led subteam management and member coordination while actively participating in the SAE Aero Design East Competition in Florida, demonstrating leadership and teamwork in a competitive environment.
- Created, projected and managed a 3 month long summer (courses and competition) camp called RC3 happened in 2024 summer

Ground Transportation Vehicle Lead, TMet Aero Design (TMAD), TMet University, Toronto, ON. *Sept 2022 – July 2023*

- Engineered and produced a lightweight radio-controlled car optimized to transport 2 lb of water, emphasizing minimalistic design for ease of carry.
- Worked closely with the Powered Autonomous Delivery Aircraft (PADA) subteam for integration of GTV into PADA as payload, contributing to collaborative design and innovation efforts.

RELEVANT ACADEMIC COURSES

ELE 888: Intelligent Systems Currently Taking
ELE 709: Real Time Computer Control Systems Currently Taking

CAPSTONE DESIGN PROJECT

Mechanical Arm Integration on UAV with Autonomous System Currently Working on

- 3D modeling and modifying parts for mounting sensors using Fusion360
- Force analyzing on 4 bar linkage gripper and calculating torque from end effector to servo motor
- Computer Vision programming (Python with OpenCV) for object detection using Raspberry Pi AI Camera
- Applying Gaussian Filter to reduce noise from sensor