Maxime Zand

https://www.linkedin.com/in/mrzand/ | https://maxzand.github.io/ | mailmaxzand@gmail.com | (623) 308-9803

SUMMARY

Enthusiastic Robotics and Autonomous Systems MS student with research experience and skills encompassing robotics, mechanical and software design, machine learning and artificial intelligence, and control systems. Highly interested in pushing the boundaries of robotics, machine learning, and autonomous systems.

EDUCATION

M.S. Robotics and Autonomous Systems **Expected May 2025**
Arizona State University (ASU) **Tempe, AZ**

- Relevant course work: Modeling and Control of Robots, Perception in Robotics, Linear Algebra in Engineering

B.S.E. Mechanical Engineering **December 2023**
Arizona State University (ASU) **Tempe, AZ**

- Relevant course work: Applied Machine Learning, System Dynamics and Controls (I&II), Circuits, Advanced Numerical Methods, Mechanical Engineering Design, Statistics, Finite Element Methods

SKILLS

Programming/Frameworks: Python, MATLAB, C/C++, C#, TensorFlow/Keras, PyTorch, PyQT
Tools/Environments: Raspberry Pi, Arduino, Robot Operating System (ROS), Git/GitHub, Linux/Ubuntu, Visual Studio
Design and Modeling: MATLAB/Simulink, SolidWorks, ANSYS (+ Fluent), Microsoft Office
Certification: Entrepreneurially Minded Micro-Credential (EM2C)

EXPERIENCE

Research Aide **May 2023 - Present**
Advanced Manufacturing and Functional Devices Lab, ASU **Mesa, AZ**

- Collaborating with graduate researchers on development of projection micro-stereolithography 3-D printers.
- Converting existing control system software to Python for faster development cycles. (C++, Python, Control Systems).
- Leveraging PyQT and Python to re-conceptualize existing user interface and to render bitmap components of print into UV patterns on Digital Micromirror Device (DMD).

Research Aide **August 2023 - December 2023**
Center for Bio-mediated and Bio-inspired Geotechnics, ASU **Tempe, AZ**

- Brainstormed new designs for development of bio-inspired self-burrowing robots using SolidWorks.
- Shadowed senior researchers with mechanical design in SolidWorks and programming along with literature reviews.

Community Assistant **July 2021 - June 2022**
Barrett, The Honors College, ASU **Tempe, AZ**

- Entrusted for working directly with first-year or upper-division students to ensure a safe and responsible environment.
- Fostered connections to build an engaging residential college or upper-division housing experience among hundreds of students, working closely with 52 students.
- Led student oriented programs promoting social, education, diversity, health, emotional, understanding and growth by cooperating with numerous student organizations at ASU over 12 events.

PROJECT EXPERIENCE

CubeSat Deployable Components **January 2023 - December 2023**
Arizona State University **Tempe, AZ**

- Collaborated on design and manufacture of cheaper, re-deployable, and easily testable components for a 3U CubeSat satellite in a team of seven students.

Conduit App **July 2022 - December 2022**
Personal Project **Phoenix, AZ**

- Designed and developed software to allow Bluetooth codecs on Windows operating systems to interface with Apple devices leveraging the Apple Notification Center Service using 3 GATT characteristics.
- Researched and applied best practices in software design and data security, such as MVVM and event driven architecture.

PROFESSIONAL & CAMPUS INVOLVEMENT

American Society of Mechanical Engineers ASU Chapter, *Industry Liaison* **December 2021 - August 2022**

- Organized industry events with companies, such as Microsoft, during the 2021-2022 academic year.