# **Kevin Shah**

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#### **EDUCATION**

Arizona State University, BSE in Robotics Engineering | Arizona, USA GPA: 3.99 / 4.00 May 2026

#### **EXPERIENCE**

#### CHART LAB (Center for Human, A.I. and Robot Teaming), (Student Worker) Arizona, USA

April 2023 - Present

- Contributed to a project supported by a **3 million dollars** award from the Defense Advanced Research Projects Agency (**D.A.R.P.A**), focusing on the advancement of Natural Language Processing (NLP) technologies.
- Played a key role in the preparation of datasets essential for NLP research, employing sophisticated data processing techniques such as data cleaning, tokenization, and data augmentation.
- Utilized python to enable the **RoboMaster S1** for autonomous navigation, implemented basic obstacle avoidance and path planning features.

## **A.S.U. Enterprise Technology**, *Technology Consultancy* (*Student Worker*) | Arizona U.S.A. May 2023 - September 2023

- Supported 36 classrooms and computing sites, ensuring seamless multimedia and computing experience for students and faculty.
- Achieved a 92% reduction in technical disruptions in classrooms through proactive maintenance and troubleshooting.
- Managed an average of 200 support cases per month, effectively resolving technical issues and ensuring user satisfaction.

## Undergraduate Student Government, Senate President Pro Tempore | Arizona, USA

Sept 2022 - April 2023

- Led and Facilitated bi-weekly meetings with 15 senators and led a diverse portfolio of 20+ Projects during a semester.
- Managed a budget of \$50,000 for Senate and Club operations, ensuring efficient allocation of resources.
- Successfully passed 91% of the proposed resolutions and bills that addressed critical issues affecting ASU Students.

#### SKILLS \_

Python, C/C++, Keras, TensorFlow, PyTorch, YOLO, Deep Learning, SQL, Matlab, Git, OpenAI API, Hugging Face API, LangChain, Generative AI, OpenCV

## PROJECTS\_

#### Handwritten Digit Recognition Student Worker

Feb 2024 - March 2024

- Prepared and Augmented the MNIST dataset comprising 60,000 training images and 10,000 test images to enhance model generalization and robustness.
- Designed and Implemented a CNN architecture using PyTorch, incorporating convolutional, pooling and fully connected layers for feature extraction and classification of handwritten digits.

## Unity Crafter (Cobot) Student Worker

Sept 2023 - Dec 2023

- Programmed the Cobot to achieve a pick and place rate of 15 objects/minute, optimizing the efficiency of automated handling operations.
- Integrated TensorFlow and PyTorch libraries to develop 3 machine Learning models: Object detection, Linear Regression (Measuring Temperature and Pressure) and Logistic Regression (Defective V/S Non Defective)

# Robomaster S1 Student Worker

April 2023 - Sept 2023

- Implemented basic obstacle avoidance on Robomaster S1 using Python and Robomaster SDK libraries.
- Applied PyTorch and TensorFlow concepts for improved navigation, showcasing adaptability in learning new technologies.

### Rigel: A Light In Darkness G.C.S.P. (Grand Challengers Scholars Program) Student

August 2022 - Dec 2022

- Led a team of 3 members in designing and developing a highly detailed functional 3D Model of an Exosuit by using Solidworks, Spline AI and 3D FY.
- The Exosuit model incorporated 3 key components, including a propulsion engine, retroreflective panels, and morphology of nanoparticles resulting in a complex and versatile engine.
- Presented the Exosuit at the Innovation Showcase at ASU, effectively communicating the technical aspects of the projects.

#### G.C.S.P. Paper: Dyson Sphere G.C.S.P. Student

August 2022 - Dec 2022

- Conducted in-depth energy calculations for Dyson Sphere, calculating an estimated energy of **70**% of output by absorbing solar radiations from the Mars atmosphere, dispersing the reflected radiations.
- Achieved an efficiency rating of 2.4% of the Sun's released energy, demonstrating a comprehensive understanding of the technical aspects of the project.