# Abu Zahid Bin Aziz

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## EDUCATION

University of Utah

Master of Science in Computing (Image Analysis)

Salt Lake City, UT Aug. 2022 -Present

Rajshahi Univeristy of Eng. & Tech.

Bangladesh

Bachelor of Science in Computer Science & Engineering

Jan. 2016 - Feb. 2021

EXPERIENCE

## SCI Institute at the University of Utah

Salt Lake City, UT

Graduate Research Assistant

Aug. 2022 - Present

- Deep learning based statistical shape modeling on different medical imaging datasets
- Contributing to existing statistical shape modeling-based projects. (ShapeWorks)

## MyMedicalHUB Corp.

Dhaka, Bangladesh

Junior AI Developer

Feb. 2021 - July 2022

- Applying state-of-the-art algorithms for various computer vision tasks such as pose estimation, instance segmentation.
- Developing and monitoring a live AI based server that handles thousands of API requests every day.
- Added unit testing and refactored the code base according to singleton design pattern

Research Intern

June 2020 - Jan. 2021

- Developed a deep learning method for detecting abnormalities from musculoskeletal images.(Paper Link)
- Contributed to multiple human pose estimation based projects.

## Projects

## Probabilistic approaches for Data Augmentation | Python, Pytorch, Git

Jan 2023 – May 2023

- Employed variational autoencoder (VAE) and generative adversarial network (GAN) to generate new samples.
- Compared the baseline augmentation methods with probabilistic approaches on the same model architectures.
- Implemented as part of a course project for CS 6190 and got A+

## Road Object Detection | Python, Pytorch, Git

Jan 2023 – May 2023

- Implemented and compared between single-stage (YOLO) and multi-stage (Faster-RCNN) object detection
- Completed as part of a course project for ECE 6960 and got A+

#### Online Course Registration System | Python, Django, React

April 2018 – February 2020

- Online platform of registering courses at the start of each semester with Django serving a REST API with React as the frontend
- Implemented payment gateway for online payment
- Enabled special instruction for course advisors
- Used Celery for asynchronous tasks

## TECHNICAL SKILLS

Languages: Python, C/C++, SQL (Postgres), JavaScript, HTML/CSS, R

Frameworks: React, Django, Flask, FastAPI

Developer Tools: Git, Docker, AWS, VS Code, Visual Studio, PyCharm, IntelliJ

Libraries: Pytorch, Tensorflow, seaborn, pandas, NumPy, Matplotlib