Abu Zahid Bin Aziz

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Education

University of Utah

Master of Science in Computing (Image Analysis) CGPA: 3.95 / 4.00

Rajshahi University of Eng. & Tech.

Bachelor of Science in Computer Science & Engineering CGPA: 3.31 / 4.00

EXPERIENCE

SCI Institute at the University of Utah

Graduate Research Assistant

• Developed a deep learning-based statistical shape modeling method that increased accuracy by 20%.

- Contributed to open-source statistical shape modeling-based projects. (e.g. ShapeWorks)
- Published research findings at top conference venues. (e.g. MICCAI workshops)

MyMedicalHUB Corp.

Junior AI Developer

- Applied state-of-the-art algorithms for various computer vision tasks such as pose estimation, instance segmentation.
- Developed and monitored 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.

MyMedicalHUB Corp.

 $Research \ Intern$

- Dhaka, Bangladesh 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

- 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

- 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*

- 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 and used Celery for asynchronous tasks
- Enabled special instruction for course advisors

PUBLICATIONS

Conference: Accepted in ShapeMI 2023, which is a part of MICCAI 2023, a top medical imaging conference Journal: Published in 2 Q1 high impact journals Book Chapters: Published in Springer and Taylor & Francis Google Scholar: <u>Profile link</u>

TECHNICAL SKILLS

Languages: Python, C/C++, SQL (Postgres), JavaScript, HTML/CSS, R Frameworks: React, Django, Flask, FastAPI, Node Developer Tools: Git, Docker, AWS, VS Code, Visual Studio, PyCharm, IntelliJ Libraries: Pytorch, Tensorflow, seaborn, pandas, NumPy, Matplotlib, PySpark Salt Lake City, UT Aug. 2022 – April 2024

Bangladesh Jan. 2016 - Feb. 2021

Salt Lake City, UT

Aug. 2022 - Present

Dhaka, Bangladesh

Feb. 2021 - July 2022

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