

Kazi Miftahul Hoque

Email: kazimifta13@gmail.com

Portfolio: kazi-mifta.github.io/Portfolio/

Education

Chittagong University of Engineering & Technology

2016 – 2022

Bachelor of Science in Computer Science and Engineering

Senior Thesis: Biometric image watermarking technique using Fractional Fourier Transform and Interpolative Decomposition.

CGPA - 2.74

Publications

Undergraduate Research

2017 – 2019

Chittagong University of Engineering and Technology

Thesis Title: “OptiFit: Computer-Vision-Based Smartphone Application to Measure the Foot from Images and 3D Scans”. [Link](#)

Research Supervisor: Dr. Ashad Kabir

Patents

Provisional Patent Application

1. K. Hoque, D. Gladyshev, R. Shah, ***Arch height difference measurement***, U.S. Provisional patent application, filed Apr. 2023.

2. K. Hoque, D. Gladyshev, A. Tokar, R. Shah, J. Mulligan, and P. Silveira, ***System and Methods for Determining a Quality Metric of Three-Dimensional Image Data***, U.S. Provisional patent application, filed Aug. 2023.

Presentations

Computational Optical Sensing and Imaging

Aug, 2023

Boston, MA

P. Silveira, R. Shah, K. Hoque and E. Fletcher, “***3D Sensing for Medical Applications***,” invited for presentation at Computational Optical Sensing and Imaging.

Work Experience

3D Software Engineer(Remote)

Sep 2022 – Present

Structure, Boulder, Colorado, USA.

- Examined a very large foot scan dataset(1 M) and developed new algorithms to measure human foot dimensions.
- Developed techniques to measure quality of human foot scans by analyzing the foot mesh.
- Developed an [iOS application](#) that demonstrated 3D reconstruction using Apple’s TrueDepth sensor. It was demoed at the American Orthotics and Prosthetics Association meeting in Sep. 2022 (San Antonio, TX).

Researcher & iOS Developer(Remote)

June 2021 – Aug 2022

Ease Your Motion, Australia

- Collaborated with pedorthists and bionic engineers to develop new systems to provide a better 3D scanning experience for foot care experts.
- Worked with orthotic fabricators and developed features to streamline the fabrication process.