

ASHISH JAISWAL

Ph.D. Student in Computer Science

@ ashiz2013@gmail.com

📞 682-433-6518

in <https://linkedin.com/in/asheeshcric>

🐙 <https://github.com/asheeshcric>

EXPERIENCE

Graduate Teaching/Research Assistant

CSE, University of Texas at Arlington

📅 August 2019 – Present 📍 Arlington, TX, USA

- Teaching Assistant for courses: C, JAVA
- Research under Prof. Makedon in Heracleia HCC Lab

Scientific Applications Programmer

SocialEyes NP

📅 April 2019 – July 2019 📍 Kathmandu, Nepal

- Researched & implemented vision and machine learning to detect diseases from retinal images targeting macular-degeneration
- Built a risk analysis matrix dashboard to visualize patient's parameters, health information, and history

Software Engineer

Insight Workshop (Python Team)

📅 Dec 2017 – May 2019 📍 Kathmandu, Nepal

- Wrote effective, scalable code in Django & Angular and developed back-end components to improve responsiveness and overall performance
- Implemented security and cloud solutions with AWS Services (EC2, RDS, S3, Lambda, CloudWatch)
- Incorporated classical ML techniques in web applications
- Worked on IoT projects related to health monitoring system
- Developed custom python packages and libraries

EDUCATION / COURSES

Ph.D. in Computer Science, GPA: 4.0

University of Texas at Arlington

📅 Aug 2019 – Present

Micromasters in Artificial Intelligence

Columbia University - EdX

📅 Jan 2018 – May 2019

Bachelors in Electronics & Comm. Engineering

Kathmandu Engineering College, Tribhuvan University

📅 Nov 2014 – Sep 2018

PUBLICATIONS

- A Multi-modal System to Assess Cognition in Children from their Physical Movements. In *Proceedings of the 2020 International Conference on Multimodal Interaction (ICMI '20)*. ACM. (accepted)
- HAND-REHA: Dynamic Hand Gesture Recognition for Game-based Wrist Rehabilitation. In *Proceedings of the 13th ACM International Conference on Pervasive Technologies Related to Assisted Environments*, June 2020

HONORS & AWARDS

- Graduate L3/Harris Award, UTA Innovation Day, 2020
- Selected as an AI Scholar in 2018 - FuseMachines Nepal
- Awarded as one of the 25 AI-fellows from Nepal in 2017 - FuseMachines Nepal

TECHNICAL SKILLS

- Languages/OS: Python, JavaScript, C, Bash, Linux, MATLAB, SQL, HTML, CSS
- Libraries/Frameworks: PyTorch, Keras, TensorFlow, Numpy, Pandas, Matplotlib, Scikit-learn, Django

PROJECTS

Fatigue Prediction with fMRI Images

- Built a model that predicts fatigue level of a subject with/out Traumatic Brain Injury (TBI) with 92% accuracy using brain fMRI scans.

Cognitive Assessment in Children with Action Recognition

- An end-to-end system that assesses cognition in children by analyzing their executive functions
- Built a multi-modal deep learning model that measured the correctness of tasks performed by children through videos

Dynamic Gesture Recognition for Game-based Wrist Rehabilitation

- Designed a deep learning model to detect real-time dynamic gestures to control a character in the game that helps in rehabilitation of subjects with wrist injury

Mobile Autonomous Retinal Evaluation (MARVIN)

- Worked on improving the performance of a deep learning retinal evaluation system that grades diabetic retinopathy from retinal images

KrishiSathi

- A web portal for farmers integrated with Machine Learning and IoT to analyze crops and their growth daily

BP & Heart Rate Monitoring System

- A health analyst web application (Angular SPA & Django REST) powered by an IoT Blood Pressure device and machine learning

WCMS for a Juice Sales Enterprise

- Developed a data-analysis web application to manage, monitor and visualize sales in a commercial enterprise