

Bhanuka Mahanama

Ph.D Student, Old Dominion University, Norfolk, VA

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mahanama94

A self-driven, and detail-oriented Ph.D. student with experience in Eye-tracking, Computer Vision, Machine Learning, and Information Retrieval looking for **summer internships (2021)** in Research and Development, or Software Development Engineering.

EXPERIENCE

Old Dominion University

Graduate Research/Teaching Assistant

Aug 2019 - Present Norfolk, VA

- Research on multi-user eye-tracking, multi-sensory information retrieval for human-computer interaction, and behavioral analysis.
- Research on computer vision, machine learning, and data science.
- Conduct sessions on Python, Embedded programming, and Data science for Student ThinSat Summer Camp.
- Performed teaching assistant duties for Data structures and algorithms, Discrete structures, and Cryptography for computer security.

University of Moratuwa

Junior Consultant

Jan 2019 - Aug 2019 Moratuwa, Sri Lanka

- Planned, coordinated, conducted and evaluated Computer Networks, Software Engineering, Industrial Computer Engineering, and Image processing practical sessions for undergraduates.
- Mentored and supervised undergraduate software engineering and final year research and development projects.

Visiting Instructor

Aug 2018 - Dec 2018

- Conducted and evaluated practical sessions for Computer Networks, and Industrial Computer Engineering.

Global Wavenet (Pvt) Ltd

Associate Software Engineer

Jan 2018 - Aug 2018 Colombo, Sri Lanka

- Designed, developed and optimized databases for high throughput applications using MySQL cluster.
- Developed plugins and plugin support for data warehousing and data analytics for existing telecommunication products.

Trainee Software Engineer

Jun 2017 - Dec 2017

- Developed high available and throughput applications using Erlang, Mnesia and MySQL cluster for telecommunication service providers.
- Developed plugins to integrate sub-systems with the company product stack.
- Developed front-end applications using HTML, Javascript and Erlang.

PUBLICATIONS

- Bhanuka Mahanama, Yasith Jayawardana, and Sampath Jayarathna. 2020. Gaze-Net: appearance-based gaze estimation using capsule networks. In Proceedings of the 11th Augmented Human International Conference (AH '20). Association for Computing Machinery, New York, NY, USA.

EDUCATION

Ph.D. in Computer Science

Old Dominion University, Norfolk, VA

2019 - 2023(Expected) GPA: 4.0/ 4.0

Machine Learning, Data Science, Computer Architecture

B.Sc. in Engineering

University of Moratuwa, Moratuwa, Sri Lanka

2014 - 2018 GPA: 3.83/ 4.2

Machine Vision, Computer Networks, Embedded Systems

Advanced Diploma in Management Accounting

Chartered Institute of Management Accountants, UK

2011 - 2013

ACHIEVEMENTS

- First Class Honors**
University of Moratuwa, Sri Lanka
- Guru Edutainment Project of the Year (2016)**
mahanama94.github.io/projects/wytboard

SKILLS AND INTERESTS

Python Java JavaScript C++ Erlang
MATLAB PHP Verilog MySQL MongoDB
SQLite Redis Derby Neo4J Tensorflow
Keras SciKit NumPy Pandas Angular
Ionic NodeJS Spring Arduino Raspberry Pi
RealSense Eye-tracking Machine Learning
Neural Networks Computer Vision
Information Retrieval

PROJECTS

Multi-User Eye Tracking

- Researching and Developing systems, algorithms and software for multi-user eye tracking for analytics in immersive environments.

<https://mgaze.nirids.cs.odu.edu/>

Python, JavaScript, OpenCV, Tensorflow, TensorflowJs

Data-Driven Education

- Researched and developed applications to provide insights to enhance the learning and teaching experience of the stakeholders in the Sri Lankan education sector through the use of data mining and machine learning techniques.

<https://mahanama94.github.io/projects/data-driven-education>

Python, Scikit-Learn, NodeJS, Angular, Orange

MySQL Monitor

- Designed and developed a tool for monitoring MySQL (NDB Cluster) for issues, errors and overloading and notifying users through subscribed services such as SNMP.

<https://mahanama94.github.io/projects/mysqlmon>

MySQL, NDB Cluster, Erlang