

Yasith Jayawardana

Ph.D. Student (CS) at Old Dominion University, Norfolk, VA

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EXPERIENCE

Graduate Research Assistant

Old Dominion University

📅 Jan 2019 - Present 🌐 <https://www.cs.odu.edu> 📍 Norfolk, VA

- Using EEG and Thermography to provide a clinical diagnosis of ASD.
- Metadata generation and aggregation of multi-sensory data.
- Technologies:** Lab Streaming Layer (LSL), Empatica E4, PupilLabs, Python, C#

Software Developer, Team Lead

DesignBoo (PVT) Ltd

📅 Jun 2018 - Dec 2018 🌐 <https://designboo.com.au> 📍 Colombo, Sri Lanka

- Set up single sign-on, streamlined DevOps, developed mobile apps and maintained company dashboards.
- Managed development across United Kingdom and Sri Lanka teams.
- Technologies:** AWS, OAuth2, OpenID, Spring, PostgreSQL, Angular, React Native, Android

Software Engineering Intern

WSO2 Lanka (PVT) Ltd

📅 Jun 2017 - Dec 2017 🌐 <https://wso2.com> 📍 Colombo, Sri Lanka

- Created a knowledge base for WSO2 Support by vectorizing WSO2 docs, training a Deep Neural Network using the document vectors and sample questions, and creating an API + UI to answer user queries.
- Technologies:** Elasticsearch, TensorFlow, DialogFlow, PostgreSQL

PROJECTS

EEG and Thermography as Objective Measures of ASD

Old Dominion University, Norfolk, VA

📅 Spring 2019 🌐 github.com/yasithmilinda/eeg-asd

Performed Spectral Analysis on EEG data, and trained CNN classifiers to diagnose ASD. Extended it using thermal data and got $\geq 90\%$ accuracy.

Technologies: TensorFlow, WEKA, Python, NumPy, Pandas, PyWavelets

Focused Crawler for the Academic Web

Old Dominion University, Norfolk, VA

📅 Spring 2019 🌐 github.com/oduwsdl/scholarly-change-rate

Derived URL update frequencies from crawl history, and determined the next set of crawl URLs by fitting into a Poisson process.

Technologies: Internet Archive, Python, NumPy, Pandas

Containerized Deployment of Apache OODT

Open Source Contribution

📅 Summer 2019 🌐 github.com/apache/oodt

Created Dockerfiles for each component in Apache OODT, configured OODT deployments using Docker Compose and Kubernetes, and integrated them into the build process through archetypes.

Technologies: Docker, Docker Compose, Kubernetes, Java, Maven Archetypes

Full Stack Microservices Framework for Java

University of Moratuwa, LK

📅 Jan 2018 - Dec 2018 🌐 github.com/msstack

Created a framework that uses distributed messaging for service orchestration, and a business process specification for generating microservices.

Technologies: ZooKeeper, Kafka, Curator, Freemarker, Netty, Java, Maven

PUBLICATIONS

- Haputhanthri, D., G. Brihadiswaran, S. Gunathilaka, D. Meedeniya, Y. Jayawardana*, S. Jayarathna, and M. Jaime (2019). "An EEG based Channel Optimized Classification Approach for Autism Spectrum Disorder". In: 2019 Moratuwa Engineering Research Conference (MERCOn). IEEE, pp. 123-128.
- Jayawardana*, Y., M. Jaime, and S. Jayarathna (2019). "Analysis of Temporal Relationships between ASD and Brain Activity through EEG and Machine Learning". In: 2019 IEEE 20th International Conference on Information Reuse and Integration for Data Science (IRI). IEEE. [Best Student Paper].
- Jayawardana*, Y. and S. Jayarathna (2019). "DFS: A Dataset File System for Data Discovering Users". In: 2019 ACM/IEEE Joint Conference on Digital Libraries (JCDL). IEEE, pp. 355-356.
- Jayawardana*, Y., R. Fernando, G. Jayawardana, D. Weerasooriya, and I. Perera (2018). "A Full Stack Microservices Framework with Business Modelling". In: 2018 18th International Conference on Advances in ICT for Emerging Regions (ICTer). IEEE, pp. 78-85.
- Jayarathna, S., Y. Jayawardana*, M. Jaime, and S. Thapaliya (2019). In: Chen, Chung-Hao. Computational Models for Biomedical Reasoning and Problem Solving (Advances in Bioinformatics and Biomedical Engineering). IGI Global. Chap. Electroencephalogram (EEG) for Delineating Objective Measure of Autism Spectrum Disorder (ASD), pp. 34-65. ISBN: 1522574670.

ABOUT ME

A full-stack developer and open-source contributor looking for a summer internship (2020) as a software development engineer or a research engineer.

EDUCATION

Ph.D. in Computer Science

Old Dominion University, Norfolk, VA

📅 2019 - Present 🏆 GPA - 4.00/4.00

Data Science, Machine Learning, Information Retrieval

B.Sc. in Computer Science & Engineering

University of Moratuwa, Sri Lanka

📅 2014 - 2018 🏆 GPA - 3.84/4.20

Distributed Systems, Database Internals, Bioinformatics

ACHIEVEMENTS

🏆 **Best Student Paper Award**
IEEE IRI 2019

🏆 **Dominion Scholar - 2019**
Old Dominion University

🏆 **First Class Honors**
University of Moratuwa

SKILLS

TensorFlow WEKA NumPy LSL Pandas
Python C/C++ C#
Java Spring Maven
Android React Native Ionic
MongoDB MySQL PostgreSQL
NodeJS Angular React
Zookeeper Kafka Docker
Elasticsearch Solr Lucene
Unix AWS

INTERESTS

Machine Learning Natural Language Processing
Signal Processing Information Retrieval
UI/UX Distributed Systems API Management
DevOps