Evangeli Silva

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RESEARCH Interests

Databases and Distributed Systems, Real-time Data Streaming, Software Engineering, Data Analysis and Visualization

EDUCATION

University of Moratuwa, Moratuwa, Sri Lanka

B.Sc. (Hons.) in Information Technology & Management offered by Faculty of Information Technology (2014 - 2018)

- Cumulative GPA: 3.50/4.20
- Related Core Modules: Fundamentals of Databases and Database Design, Database Management Systems, Artificial Intelligence, Advanced Database Management Systems, Data Mining & Data Warehousing, Big Data Analytics, Programming Fundamentals, Object-Oriented Programming, Object-Oriented Analysis & Design, Data Structures & Algorithms, Operating Systems, Essentials of Computer Organization & Architecture, Software Engineering Methods, Essentials of Multimedia and Web Technologies, Essentials of Mathematics, Statistical Distribution & Algorithm, Elements of Statistics, Calculus, Operational Research, Enterprise Application Development, Management Information Systems

Good Shepherd Convent, Kandy, Sri Lanka (Senior High School)

(1999 - 2013)

General Certification of Education Advanced Level Examination in Arts Stream (University Entrance Examination)

- Z-score: 1.8174
- Related Subject: Information Communication & Technology (obtained 'A' Grade)

RESEARCH EXPERIENCE

Detection and Analysis of Hate Content in Sinhala Language (Final Year Research Project) (2018) University of Moratuwa, Sri Lanka

Implemented an automated tool that is capable of detecting hate content presented in Sinhala phrases extracted from Facebook posts/memes. The tool accepts an image that contains Sinhalese (a native language in Sri Lanka) texts, extracts the text using a Convolutional Neural Network (CNN) model, pre-processes the text and finally analyses the extracted text to identify hate intensity level and the domain it belongs to. My contribution to this research project was to classify the extracted text into 4 main domains namely Political, Race, Religion and Gender using text classification models. (conducted feature engineering, supervised & unsupervised term weighting and classifier modelling)

PUBLICATIONS

E. Silva, M. Nandathilaka, S. Dalugoda, T. Amarasinghe, S. Ahangama and G.T. Weerasuriya, "Detection and Analysis of Hate Content in Sinhala Language", International Conference on Information Technology Research, submitted.

Professional Experience

Senior Software Engineer, Sysco LABS (Pvt.) Ltd, Colombo 03, Sri Lanka (The technology service provider of Sysco)

(November 2020 - present)

- Built and managed the core enterprise micro-services that expose the domain data of the Sysco Corporation (the leader in the marketing and distribution of food products in the USA). The domain data includes product information, orders, invoices, etc. These micro-services are consumed by mission-critical and highly user-active systems like online shopping platforms, B2B, and analytics applications.
- Designed relational database schemas for several microservices which deal with the domain and customer data of Sysco.
- Involved in improving the performance of databases by introducing proper indexing and SQL query optimizations to serve the increasing user demands while maintaining the agreed SLAs.
- Worked in real-time data synchronization from a monolithic source database system to multiple databases in a microservice-based architecture via Change data capture (CDC) and data streaming mechanisms.
- Designed an approach to efficiently purge historical data in a given database without causing any impact to the existing data and users of the application that points to the database.

Software Engineer, Sysco LABS (Pvt.) Ltd, Colombo 03, Sri Lanka (The technology service provider of Sysco)
Engaged in the development and maintenance of Sysco's APIs.

(March 2019 - November 2020)

- Micro-service/Application Design and Development
- Infrastructure Management
- Database Design, Development and Management
- Continuous Integration and Development

Engineering Intern, Vesess (Pvt.) Ltd, Colombo 00100, Sri Lanka

worked Data Science with Python for the project Donordo

- Web Mining and Data Enrichment
- Data Mining
- Cloud Computing
- In-Memory Data Structure Store
- Data Analytics and Visualization

TEACHING Experience

Visiting Lecturer, National Institue of Co-operative Development, Sri Lanka (January 2020 - May 2020) Conducted lectures for the following modules offered in Computer Application Assistant (NVQ Level 03) Program

K72S003U01 Use the Computer and Manage files within standard operating systems K72S003U05 Setup and use Databases

OTHER PROJECTS

Mimix Data Transformer

Development of a library that is capable of filtering Mimix events, transforming and mapping any Mimix event into one or more tables in a target database and performing post-processing actions after data transformation.

- Mapping is done in standard JSON format
- Minimizes boilerplate code
- Released as a Java artifact and is available for public use
- Extensible and pluggable architecture

Dynamic Product Lists Generator (for the newly onboarding Sysco customers)

Development of a recommendation engine that is capable of generating and recommending dynamic product lists for the newly onboarded Sysco customers. This benefits Sysco as new customers get immediate exposure to Sysco's products that are relevant to their business type/activities from the recommended lists and the existing customers get the opportunity to try out new products in Sysco's product catalogue rather than purchasing products in static order templates.

Recommendations are based on multiple feature parameters such as customers' cuisine types, location, etc. Clustering of customers was performed utilising the K-means clustering algorithm.

Compassionate Sri Lanka

A CSR project at Sysco LABS in collaboration with the Ministry of Social Empowerment to build a responsive web application where donors can meet the people who are in need and fulfil their requests. I contributed the project in:

- Responsive Web Application Development
- API Development
- SMS/Email Notification Integration

Application of Data Mining Techniques for Phishing Website Detection

Use of Data Mining Techniques to identify the best classifier model in detecting whether a given URL is Phishing or Legitimate. This was done under the course module Data Mining & Data Warehousing

Data Processing Pipeline for Predicting Flight Delays using Big Data Approach

Implementation of a model that predicts flight delay in real-time. Utilized Spark streaming using Apache Spark/Kafka Streaming, Machine Learning and Decision Trees. This was done under the course module Big Data Analytics

Televisionary

iOS and Web-Based Applications where a user can maintain a profile to rate TV Shows, create a list of favorites, keep track of the recently watched TV shows and to be notified on Upcoming TV Shows.

Svijest

An Android Application which students of G.C.E. Advanced Level can engage in Chemistry & Physics practical lessons more effectively.

(October 2017 - March 2018)

AWARDS & ACHIEVEMENTS

- Sysco LABS Customer First Value Award 2020, awarded for generating business value while effectively solving for and serving customer needs in the Digital Vertical
- Dean's List appearance in Level 2 Semester 2 as an undergraduate in the University of Moratuwa,
 Sri Lanka
- One among the only 2 candidates in Sri Lanka to obtain an 'A' grade for Information & Communication Technology at the General Certificate of Education Advanced Level (university entrance examination) in the year 2013

SKILLS

Languages: English, Sinhalese

Programming Languages: Java, Python, Node.js

Machine Learning Libraries/Tools: Scikit-learn, NLTK

Databases/Data Structure Stores: Postgresql, Microsoft SQL Server, Oracle Database, Redis

Cloud Computing Platform: Amazon Web Services

Monitoring & Data Visualization Platforms: Kibana, Datadog

Version Controlling Services: GitHub CI/CD Platforms/Tools: Concourse, Jenkins Operating Systems: Ubuntu, Windows

Other Frameworks/Technologies: Redux, React, Docker, LaTeX

Professional

Member, The Interaction Design Foundation

MEMBERSHIPS Issued

Issued July 2021 (No Expiration Date)

Extra-

Treasurer: Sysco Labs SL Toastmasters

CURRICULAR

Student Relation: Vesess Alpha Coding Challenge (www.vesess.com/alpha)

ACTIVITIES

Editor: FIT Chronicles (2017) - Faculty Newsletter

Coordinator, Article Reviewer - Technical: Faculty CSR Project - "www.fit2school.com"

Organizing Committee Vice President - Delegate: IT Recruitment 2016, AIESEC Colombo South Organizing Committee Vice President - Finance: Global Classroom 1.0, AIESEC Colombo South

Organizing Committee Member: Heal a Nation 4.0, AIESEC Colombo South

O/L Technical Session Conductor: INTECS Outreach - Kurunegala/ Ruwanwella

Facilitator: Catholic Students' Movement, University of Moratuwa Hardware Project Demonstrator: Faculty of IT at Future Minds 2015

Member: Senior Choir, Good Shepherd Convent Kandy

References

Dr. (Ms.) S. Ahangama

Director of Undergraduate Studies,

Faculty of Information Technology, University of Moratuwa, Sri Lanka

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Mr. Amila Surendra

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Business Technology Studio,

Sysco LABS Sri Lanka, Colombo 03, Sri Lanka

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Dr. L. Ranathunga

Senior Lecturer,

Faculty of Information Technology, University of Moratuwa, Sri Lanka

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Dr. B. L. Semage

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