ANUSHKA IDAMEKORALA

Charlottesville, VA 22903 • anb5km@virginia.edu • + 1 (434) 257-8709
Personal Website: anushkai.github.io • linkedin • github

EDUCATION

UNIVERSITY OF VIRGINIA   **Charlottesville, VA**
Doctor of Philosophy, Computer Science   **AUG 2022-Now**
GPA 4.0/ 4.0

UNIVERSITY OF MORATUWA   **Moratuwa, SL**
Bachelor of Science of Engineering, Major in Electronics and Telecommunication   **DEC 2014- JAN 2019**

TECHNICAL CERTIFICATIONS

- **Databricks Certified Data Engineer Professional**   **June 2024**
- **AWS Certified Machine Learning Speciality**   **June 2024**
- **AWS Certified Developer Associate**   **May 2024**
- Microservices: Clean Architecture, DDD, SAGA, Outbox & Kafka: Udemy   February 2024
- **AWS Certified Solution Architect Associate**   **June 2023**
- Coursera Cloud Computing Specialization authorized by ULUC   **2020**

PROFESSIONAL EXPERIENCE

COMPUTER SCIENCE DEPARTMENT, UVA   **Charlottesville, VA**
Research Assistant   **AUG 2022-Present**

- Explored novel approaches that leverage parallel and distributed computing architectures to achieve faster and more scalable graph processing.
- Currently working on the research direction of foundation models and big data systems. My research focus is on implementing time series foundation models which can quickly adapt to a given context.

NOVATTI GROUP(ASX: NOV) VIA UNIBENCH   **Colombo, Sri Lanka**
Associate Tech Lead   **JUN 2022- AUG 2022**
Senior Software Engineer   **JUN 2021- JUN 2022**

- I have played a full-stack role, contributing to every key component of the payment gateway, which followed a serverless architecture. I worked on implementing several principal components, including reconciliation flow, disbursement flow, and merchant onboarding flow. Moreover, I actively contributed to the end-to-end implementation of PayXCrypto, Novatti's secure and compliant real-time crypto payment system.
- **AWS Stack**: Lambda, DynamoDb, API Gateway, SQS, SNS, Secret Manager, App Config, S3, CloudFront, CodeCommit, CodePipeline, Step Function
- Other Stack: Java, Spring Boot, Javascript, Maven, React, REST API, GraalVM, PHP, Git, Bash

PICKME   **Colombo, Sri Lanka (SL)**
Software Engineer   **FEB 2021- MAY 2021**

- I worked on the Food team of Pickme, Sri Lanka's leading taxi-hailing and food-delivery system. Key Responsibilities included designing and implementing microservices that followed an event-driven architecture and developing enhanced monitoring.

- Technical Stack: Go, Kafka, Docker, Kubernetes, REST api, Prometheus, Grafana, Git, Bash,SQL

SINGAPORE MANAGEMENT UNIVERSITY   Singapore
Research Engineer   **OCT 2019- DEC 2020**
- Chatbot-based indoor localization system
  - I implemented a rule-based chatbot to identify user locations incorporating landmarks. To verify the accuracy of the location, I implemented extended questioning techniques based on the surroundings.
- Driver guidance system for Cab drivers
  - I implemented ML models to forecast ride-hailing demand for Tokyo zones, which were utilized to provide guidance to Japanese cab drivers. Additionally, driver waiting time was calculated for each POI(hot spot) in real time. This implementation was experimented with the collaboration of **Fujitsu.**
- Technical Stack: Java, Python, Docker, Git, Bash, SQL, C++

SYSCO LABS   Colombo, SL
Software Engineer   **FEB 2019- OCT 2019**
- I worked on Sysco Shop, **Sysco's** latest shopping application. I played a full-stack role, contributing to many key components of the application. Key responsibilities included designing and implementing microservices, in an agile environment.
- Technical Stack: Java, Springboot, React, Javascript, REST api, NodeJS, Git, Bash, SQL

OTHER PROJECTS

Multi-Variate Time Series Forecasting in Hydrology   **MAY 2024- Now**
- This aimed to measure the contribution of static variables on multivariate time series ML models using hydrology datasets.

Emotion Fluctuation Identification In conversations   **AUG 2023- DEC 2023**
- Implemented a transformer-based NLP model to identify emotions through a conversation and utilize that to measure mental progress.

Privacy-Preserving Machine Learning   **FEB 2023- AUG 2023**
- This work focuses on federated learning and improving the scalability and efficiency of personalized federated learning.

Evaluating Alias Analysis methods   **FEB 2023- MAY 2023**
- I have experimented with the scope of alias analysis methods in LLVM and their impact on the performance of overall compiler optimization.

Vehicle platooning system for highways   **APR 2018- OCT 2018**
- Developed dynamic vehicle clustering algorithms for highways to improve the overall experience of drivers and formulated a simulation study.

Internet Traffic Shaper   **JUL 2017- DEC 2017**
- Implementation of a network device to fairly distribute the bandwidth in a hierarchical network while maintaining the QoS of each connection.

HONORS AND AWARDS

- IEEEXtreme | Global competitive programming competition organized by IEEE   **Moratuwa, SL**
  - o   **IEEEXtreme 12.0 Country Rank - 01, World Rank - 60**   **2018**
  - o   **IEEEXtreme 10.0 Country Rank - 03, World Rank - 106**   **2016**
- MoraXtreme | Local programming competition organized by the University of Moratuwa   **Moratuwa, SL**
  - o   **MoraXtreme v1.0 Champions**   **2018**
  - o   **MoraXtreme v3.0 Champions**   **2016**
- AcesCoders | Local programming competition organized by the University of Peradeniya   **Kandy, SL**
  - o   AcesCoders v6.0 Runners Up   **2018**
  - o   AcesCoders v8.0 Runners Up   **2016**
- Final Grade GCE Advanced Level: Provincial 1st , Island 14th, z-score 2.7130, percentile 99.96%   **2013**

INTERESTED AREAS

- **Cloud computing, Parallel processing, Distributed Computing, Databases, Big Data, Serverless computing**

REFERENCES

- Prof. Geoffrey Fox, University of Virginia, VA 22903, USA.
- Dr. Nalaka Goonerathne, Novatti Group (ASX: NOV), Australia
- Dr. Tharaka Samarasinghe, University of Moratuwa, Sri Lanka