Kolitha Warnakulasooriya

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Mobile, Alabama, United States

A professional software engineer and developer with 5+ years of experience in full-stack application development. A researcher with 3+ years of experience in general artificial intelligence in robotic applications. Professionally collaborated with other development teams to integrate business logic and optimize the components to enhance the customer experience. Demonstrated strong leadership within an agile framework through punctual delivery and deployments, maintaining professional communication with higher management and other teams, and proficiently delegating sprint tasks.

Education

Ph.D. in Computing (AI)   **May 2025**
School of Computing, University of South Alabama, United States (GPA: 3.91)

B.Sc. (Hons) in Information Technology   **Jul 2018**
Faculty of Information Technology, University of Moratuwa, Sri Lanka (GPA: 3.55)

Employment Experience

Graduate Research Assistant   **Jan 2022 – May 2025**
University of South Alabama, Mobile, United States

- Pursue research to introduce a dynamic leader election algorithm for an autonomous aerial vehicle system based on cognitive intelligence.
- Published three research articles in top-ranked artificial intelligence conferences and journals (AAAI-2023, ICIPRoB, Evolutionary Intelligence)
- Engaged as a lead researcher in Drone Systems and AI Laboratory by leading and administrating three core UAV-related research and developed a ROS-based adaptable Python flight framework to operate heterogeneous commercial UAVs such as Tello, Anafi, and Bebop, which can handle a maximum of 15 agents in the cluster.
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Associate Lead Software Engineer   **Aug 2021 – Jan 2022**
SyscoLabs Technologies, Colombo, Sri Lanka
Innovation office - Sysco Corporation (NYSE: SYY), United States

- Promoted as an assistant engineering manager to the core development team of the Sysco Shop CRM platform with 10+ engineers.
- Coordinated in an agile/scrum environment with planning the sprints, conducting daily standups and retrospective meetings in JIRA, and managing meeting minutes in the Confluence dashboard regarding the Q1 quarter of fiscal 2021.
- Acted as an agile scrum master, planned the sprints, conducted daily standups and retrospective meetings, and provided guidance and technical and cultural support to three engineers.

Senior Software Engineer   **Dec 2019 – Aug 2021**
SyscoLabs Technologies, Colombo, Sri Lanka
Innovation office - Sysco Corporation (NYSE: SYY), United States

- Utilized modern software engineering expertise to design and develop Sysco Shop CRM web application features.
- Proficiently troubleshoot simple and complex issues and contributed as an on-call representative for production incidents, and zero production incidents were reported related to the responsible components.
- Facilitated as the core technical support engineer for the product list in ordering features and collaboratively engaged and resolved three critical issues.

Software Engineer   **Jul 2018 – Nov 2019**
SyscoLabs Technologies, Colombo, Sri Lanka
Innovation office - Sysco Corporation (NYSE: SYY), United States

- Implemented React-Native UI components framework for mobile for the entire Sysco Delivery mobile application with 100% customizable in-house components.
- Piloted the development of an open-source, in-memory weight mock API framework package for servicing dynamic mock APIs for all the microservices, which shortened the unnecessary subscription expenses by 100%. Encouraged other developers to join open-source systems.
- Ensure the BFF unit tests, and integration tests coverage is over 90% and full Sonar coverage as the component manager of BFF.

Software Developer – Self-Employed   **Jul 2018 – Present**
Techila Software

- Led frontend team to develop and maintain three multi-tenant web applications and two hybrid mobile applications.

Skills

Programming Languages: Java, JavaScript, Python, SQL, C++

Technologies & Frameworks: React, React-Native, Redux, Expo, Spring boot, NodeJS, ROS

Project Management and Communication: Jira, Confluence, Slack, Outlook, Microsoft Teams

Editors, IDE, and Tools: JetBrains IDE, VS Code, MS Office, DBeaver

Databases: MySQL, PostgreSQL, MongoDB, Redis, Spark

Other: Pytorch, SonarQube, Datadog, Dynatrace, Optimizely, Google, ChatGPT, AWS, Azure

Recent Projects

SwarmX   **Jul 2022 – Present**
University of South Alabama, Mobile, Alabama
github.com/kolithawarnakulasooriya/SwarmX

- Initiated open-source swarm intelligence optimization framework with 21 embedded algorithms tested classical benchmarks and unit-wise.
- Implemented the graphical interface to visualize agent activities based on design patterns.

MineArc Service App   **Sep 2021 – Present**
Techila Software
minearc.com/serviceapp

- Developed E2E hybrid application to maintain the service terms based on react, react-native frameworks.
- Implemented a calendar component with the same features as Microsoft Outlook, scheduling, planning, and reminding.

Formula 1 – SAE Hybrid Electric Competition Vehicle   **Jan 2024 – May 2025**
University of South Alabama, Mobile, Alabama

- Achieved 3rd place in the hybrid category.
- Appointed as the computer team lead, designed and developed the electronic and computing system to collect, manage, and manipulate ECU, BMS, and motor control over the CAN network.
- Developed the FE application to display real-time data on the dashboard with bidirectional communication over the CAN network.