Kolitha Warnakulasooriya

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A software engineer with over 3.5 years of experience in full-stack application development utilizing React, Node.js, and Spring Boot on Amazon Web Services (AWS), alongside 3+ years of experience in artificial intelligence research for robotic applications employing PyTorch, Robot Operating System (ROS), and core Java in conjunction with Scientific Python. I have a proven track record of leading and managing teams toward achieving company objectives, emphasizing innovation, successfully integrating business logic, and ensuring a positive customer experience. I am eager to share my knowledge, experiences, and dedication while immersing myself in new cultures and continuing my passion for software development.

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)

Skills

Programming Languages:	Java, JavaScript, Typescript, Python, SQL
Technologies / Frameworks:	React, React-Native, Next Js, Redux, Expo, Spring boot, NodeJS, ROS, ROS2
Project Management:	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

Projects

SwarmX | University of South Alabama, Mobile, Alabama   **Jul 2022 – Present**

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

Employment Experience

Graduate Research Assistant | University of South Alabama, Mobile, United States   **Jan 2022 – Present**

- 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 conferences and journals (AAAI-2023, 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.

Associate Lead Software Engineer | SyscoLabs Technologies, Colombo, Sri Lanka   **Aug 2021 – Jan 2022**

- Managed the core development team of the Sysco Shop CRM platform with over 10 team members.
- Coordinated in an agile/scrum environment by planning sprints, conducting daily stand-ups and retrospective meetings in JIRA, and managing meeting minutes on the Confluence dashboard.
- Served as an agile Scrum Master, organized the sprints, facilitated daily stand-ups and retrospective meetings, and offered guidance and technical and cultural support to three engineers.

Senior Software Engineer | SyscoLabs Technologies, Colombo, Sri Lanka   **Dec 2019 – Aug 2021**

- Applied modern software engineering expertise to design and develop Sysco Shop CRM web application features.
- Proficiently troubleshoot simple and complex issues while serving as an on-call representative for production incidents, resulting in zero production incidents reported related to my responsibilities components.
- Served as the primary technical support engineer for the product list in ordering features and worked collaboratively to resolve three critical issues.

Software Engineer | SyscoLabs Technologies, Colombo, Sri Lanka   **Jul 2018 – Nov 2019**

- Implemented the React Native UI components framework for the entire Sysco Delivery mobile application, featuring fully customizable in-house options components.
- Led the development of an open-source, in-memory mock API framework package to service reducing unnecessary subscription costs by 100%. Motivated other developers to participate in open-source systems.
- As the component manager of BFF, ensure that the unit tests and integration tests for BFF are over 90% covered and that Sonar is fully covered.