Nipun Himash Wedisinghe

Software Engineer

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SUMMARY

A first-class honors computer science graduate with a particular interest in artificial intelligence and machine learning. I am currently employed as a software engineer, with a primary focus on developing practical solutions using AI and large language models. Passionate about learning bioinformatics and computational biology under the supervision of a subject matter expert.

EDUCATION

University of Sri Jayewardenepura

Sri Lanka

BSc (Honors) in Computer Science (First class)

2019 - 2023

GPA: 3.7/4.0

ESoft metro campus

Sri Lanka

Diploma in Information Technology

2019

PUBLICATIONS

Explainable AI methods for identifying critical areas in chest X-ray images

2024

Conducted an undergraduate research project aimed at enhancing the system for explaining chest X-ray images by integrating multiple explainable AI methods. Provided visual-based explanations for predictions made by a trained CNN-based classification network, enabling accurate detection of lung cancer.

DOI: 10.1109/ICARC61713.2024.10499787

AWARDS

Academic Excellence Award - University of Sri Jayawardenepura

2023

Awarded for obtaining the highest GPA and graduated as the top of the batch of BSc (Hons) in Computer Science degree offered by the Department of Computer Science.

EXPERIENCE

Full Stack Engineer II

Nov 2023 - Present

at Skillfully

USA

- Engineered AI-based software products leveraging large language models, integrating AI into web applications using OpenAI. Utilized front-end frameworks ReactJS, NextJS, and TypeScript, along with Zustand and Redux Toolkit for client-side state management.
- Managed relational databases like PostgreSQL with Prisma ORM. Collaborated with U.S.-based clients to deliver tailored solutions.
- Spearheaded back-end development with NodeJS, ExpressJS, and NestJS.
- Created and deployed CI/CD pipelines with GitHub Actions, reducing deployment time by 40%. Enhanced application efficiency and user experience through robust state management and serverless architecture.

Trainee Software Engineer

Feb. 2023 – Aug. 2023

at 99X

Sri Lanka

- Developed an enterprise-grade commercial compliance management application, leveraging frontend web frameworks React, Angular, and AngularJS. Architected AWS Serverless solutions, enhancing scalability and efficiency.
- Executed NodeJS for server-side programming and managed NoSQL databases (MongoDB/DynamoDB). Utilized AWS services (EC2, S3, Lambda, Cognito, Fargate) to optimize application performance.
- Engineered pipelines on Azure DevOps, streamlining deployment processes. Automated API testing with Postman and E2E testing with Cypress, ensuring robust quality assurance.
- Optimized DB migration scripting and collaborated closely with product owners to gather requirements. Crafted user stories and updated existing ones as per client needs.
- Introduced an innovative method to resolve lambda secrets at runtime, enhancing security by minimizing exposure during function execution.

Explainable AI methods for identifying critical areas in chest X-ray images

2023

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Lazy Logger VS Code Extension Visit Marketplace

2023 – Present

- Developed an extension for VS Code with TypeScript, automating the insertion of print statements for selected text. Enhanced developer efficiency by displaying file names, line numbers, and logged variables, significantly optimizing debugging workflow. Achieved a more than 20% reduction in debugging time by eliminating extra coding steps.
- Introduced beta support across JavaScript, TypeScript, C#, Java, and Rust languages, expanding functionality and adoption among diverse developer communities.

Quotozz Visit Site 2023 – Present

- Developed an Image Quote Generator application enabling users to create images with random quotes from authors or personalized inspirational thoughts.
- Implemented the frontend using React, TypeScript, and Tailwind CSS, deployed on Netlify. Implemented the backend in Python, utilizing AWS Serverless architecture with Docker containers on Lambda functions.
- Established a CI/CD workflow with GitHub Actions, automating backend deployment on AWS and frontend deployment on Netlify upon merging PRs to the production branch.
- Utilized AWS services including S3, Lambda, ECR, API Gateway, and CloudWatch Logs, ensuring robust functionality and comprehensive monitoring.
- Achieved seamless functionality and scalability with serverless architecture, resulting in reduced deployment complexity.

TECHNICAL SKILLS

Languages: JavaScript, TypeScript, SQL, Python, Java, C, LaTeX, MatLab, R

Frameworks: React, Angular, Vue, NextJS, NestJs, ExpressJS

Developer Tools: Git, Docker, Amazon Web Services, Azure Devops

Databases: PostgreSQL, MongoDB, Amazon RDS, Pinecone

References

Prof. T.G.I. Fernando

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Prof. R.G.N. Meegama

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