Charles Aaron
Software Engineer

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I'm a developer who loves building things that make an impact. I've created ERP systems, built machine learning models, developed a palm-payment app, Web3 Games and made over 70 Web games played by thousands of people. Whether it's solving tough problems, leading projects, or helping others grow, I enjoy turning ideas into real-world solutions and pushing technology to do more.

SKILLS & SPECIALIZATION

- Software Development: ERP Systems, Web Development ,Android/IOS Development
- Machine Learning: LSTM models, NLP (VADER Sentiment Analysis), Keras, TensorFlow, Pandas, NumPy
- Game Development: Unity, PlayCanvas, Unreal, WebGL
- Programming & Frameworks : JavaScript, Python, Flutter, React JS ,Electron
- Database Management: MySQL, Firebase, Supabase
- Project Management: Jira, ClickUp, Agile/Scrum Methodology, DevOps
- Other: 3D Modeling, Texturing, Public Speaking, Requirements Gathering

Work Experience

Software Engineer / Game Developer
Nine Hermits Studios (Pvt) Ltd, Colombo, Sri Lanka
June 2023 – Present

- Led the development of ERP systems for Haycarb and EWIS, integrating various business modules to improve workflow efficiency.
- Worked on Web3 AAA game development, mentoring interns and collaborating on international projects.
- Developed and tested blockchain/Web3-based games, coordinating playtests with foreign partners for QA.
- Managed marketing content and represented the company in international discussions.

Trainee Junior Game Developer
Nine Hermits Studios (Pvt) Ltd
January 2023 – June 2023

- Contributed to a Web3 multiplayer AAA game and organized playtests to gather feedback for bug fixes.
- Assisted in web game development while mentoring junior developers.
- Maintained comprehensive documentation and adapted to evolving project requirements.

Intern Game Developer
Nine Hermits Studios (Pvt) Ltd
June 2022 – January 2023

- Created 3-5 engaging web games weekly, collaborating with designers and artists to implement game mechanics.
- Conducted rigorous testing to optimize performance across platforms and documented processes effectively.

RECENT PROJECTS

Palm-Based Payment Application
(https://github.com/arrondavide/palmdetection)

- This Flutter app demonstrates a basic palm recognition system using a mobile device's camera. It captures an image of the user's palm, processes the image to generate a unique hash by converting it to grayscale and resizing it, and compares the generated hash with a pre-stored hash to verify if the palm matches. The app uses the camera package for real-time camera feed, and a floating action button allows users to capture and process their palm scan. This concept showcases a simple approach to biometric identification, which can be expanded with more advanced image processing techniques in the future.

Stock Prediction and Market Sentiment Analyis ML
(https://github.com/aaronzwe/mintafyingstock/blob/main/streamlit_app.py)

- The Stock Analysis and Prediction App is an interactive tool for analyzing and predicting stock trends using historical data, live market insights, and sentiment analysis. Built with Streamlit, it leverages an LSTM machine learning model to forecast stock prices, displays real-time market data, and analyzes news sentiment using VADER. Users can visualize trends, access buy/sell recommendations, and explore sentiment-driven insights for major energy companies, all in a user-friendly interface.

Real-Time Full-Body Pose Synchronization with Unity
(https://github.com/arrondavide/bodyTracker)

- This project uses OpenCV and cvzone to detect full-body poses in real time from webcam input and transmits the pose data via a UDP socket to Unity. The Unity application visualizes the data by synchronizing it with a 3D avatar, enabling interactive real-time applications such as gaming or motion-based simulations. This seamless integration bridges physical movements with digital environments for dynamic and immersive experiences.

Voting App(Flutter)
(https://github.com/arrondavide/BatmintonShots)

- This is a voting app that helps you host or create voting sessions and also helps you get into the specific voting session using your nic and voting room id, which acts as the private key between voter and hoster. It also shows you the current stats of the election after you vote, and it also shows you what election or voting session you have visited and can help you revisit it and check the stats of the election.

EDUCATION

University of Wolverhampton (Jan 2024 – Nov 2024)
- BSc (Hons) Computer Science in Software Engineering

SLIIT
- Higher National Diploma, Information Technology (Jan 2019 – Nov 2021)
- Foundation Degree, Information Technology (2018 – 2019)

OKI International School (2008 – 2018)
- IGCSE

LANGUAGES

- English: Bilingual proficiency
- Tamil: Native
- Sinhala: Professional working proficiency

VOLUNTEER WORK

- Polygon Blockmeet Member & Speaker
- Organized and delivered workshops on blockchain technology, supporting the growth of POLYGON Blockchain.

REFERENCES

Dr. Yasas Jayaweera
- Head-Academic/Senior Lecturer (Higher Grade)|SLIIT Academy
  Email: *yasas.j@sliit.lk*

Dr.Nipunika Vithana
- Ph.D. Senior Lecturer (Higher Grade)/Program Coordinator –UoB (BA)|SLIIT Academy
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