# 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
- Conducted rigorous testing to optimize performance across platforms and documented processes effectively.

#### Palm-Based Payment Application

# RECENT PROJECTS

- Technologies Used: React JS, OpenCV, Supabase
- Objective: Designed and developed a palm recognition system to enable secure and efficient payments without physical contact.
- Details: Implemented biometric scanning algorithms, integrated payment APIs, and ensured system security and scalability.
- Outcome: Delivered a prototype with robust biometric accuracy, tested for real-world payment scenarios.

### **ERP System for Internal Operations**

- Technologies Used: React JS, Node.js, Supabase
- Objective: Created a comprehensive ERP solution for the company's internal operations, streamlining workflows and improving team collaboration.
- Details: Integrated modules for inventory management, employee tracking, and reporting dashboards.
- Outcome: Enhanced operational efficiency by automating manual tasks and improving data visibility.

#### Game Development Portfolio

- Technologies Used: Unity, PlayCanvas, Unreal Engine, WebGL
- Objective: Developed over 70 games for platforms like Megaplay and Gamecity, reaching over 200,000 players.
- Details: Created games ranging from casual puzzles to multiplayer experiences, optimized for crossplatform compatibility.
- Outcome: Consistently delivered high-quality games on a weekly basis, contributing to the success of major telecom platforms.

## **Stock Price Prediction using LSTM Model**

- Technologies Used: Python, TensorFlow, Keras, Pandas
- Objective: Built an LSTM-based model to predict stock price trends using historical data and sentiment analysis.
- Details: Preprocessed large datasets, trained a deep learning model, and integrated VADER sentiment analysis for added accuracy.
- Outcome: Achieved an accuracy improvement of X%, offering actionable insights for market prediction.

#### **Object Detection System Using Keras**

- Technologies Used: Python, Keras, TensorFlow, OpenCV
- Objective: Designed a real-time object detection system to identify specific items in images and video feeds.
- Details: Trained a CNN model with enhanced data preprocessing and optimization techniques.
- Outcome: Delivered a detection system with an accuracy of Y%, applicable to inventory management and security scenarios.

#### **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

# VOLUNTEER WORK

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

#### **LANGUAGES**

• English: Bilingual proficiency

· Tamil: Native

• Sinhala: Professional working proficiency

#### **REFERENCES**

# Dr. Yasas Jayaweera

 Head-Academic/Senior Lecturer (Higher Grade)|SLIIT Academy

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## Dr.Nipunika Vithana

 Ph.D. Senior Lecturer (Higher Grade)/Program Coordinator –UoB (BA)|SLIIT Academy Email: nipunika.v@sliit.lk Tel: 0117543612 [Ext 3612]

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