CHUAN ZHE FU (JEREMY)

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PROFILE SUMMARY

- UCL Computer Science student with a strong background in software engineering and problem solving.
- Passionate about VR, AR and gaming, with experience in building immersive applications.
- Internship experience at Amazon and Meta Reality Labs, building features that improved performance and user engagement.
- Skilled in full-stack development and XR technologies, with proficiency in Unity, C#, Java, Kotlin and AWS.

EDUCATION

University College London – MEng Computer Science 2022 - 2026

- Minor in Crime and Security Engineering
- Currently on track to graduate with First Class Honours

Sunway College, Malaysia – **Cambridge GCE Advanced-Level (A Level)** 2021 - 2022

- 4A* (Mathematics, Further Mathematics, Chemistry and Physics)
- Awarded Best Across Four in Malaysia, Top in the World for Mathematics and Further Mathematics and Top in Malaysia for Physics

PROFESSIONAL EXPERIENCES

SWE Intern, Meta Reality Labs (London, UK) 2025

- Developed a new notification in PHP and React Native that deep links to chat with a prefilled congratulatory message upon Horizon Quest completion, fostering stronger social connections and engagement.
- Enhanced the new VR overlay interface Navigator by adding avatar animations into profile pictures in Android Kotlin.
- Improved render time by ~32% through implementing a GraphQL API root call with pagination support, enabling dynamic content loading for private social groups.

SDE Intern, Amazon Prime Video & Studios CoreTech (London, UK) 2024

- Spearheaded the development of an API in Java to automate $4.4 million worth of device partner payments, focusing on QR code-driven purchases.
- Built a robust data ingestion layer utilising AWS Lambda, Kinesis Data Stream, and DynamoDB, processing large volumes of data efficiently.
- Authored comprehensive and detailed design documentation and facilitated feedback sessions via document reviews and presentations.
- Ensured API and pipeline reliability by implementing extensive unit and component testing.

PROJECTS

Researcher, UCL Virtual Environments and Computer Graphics 2024 - 2025

- Built a virtual shopping mall environment in Unity using XR Core and Ready Player Me to investigate how avatar clothing styles influence user shopping behaviour in VR.
- Integrated inverse kinematics and position calibration using FinalIK to ensure natural avatar movements across different participant heights.
- Collected behavioural data and conducted statistical analysis to compare sample groups and examine relationships between embodiment, gaze behaviour, and spending.

Augmented Reality Card Game 2025

- Developed an augmented reality prototype of Adventure Time: Card Wars in Unity using ARFoundation, supporting both Android and iOS platforms.
- Implemented card recognition with character animations and plane detection to render 3D models of characters corresponding to cards played, illustrating the immersive potential of AR in tabletop games.
- Integrated user interactions with Lean Touch to enable rotation, scaling, and movement for intuitive user control.

EnergyGuard Version 3, UCL 2023 - 2024

- Enhanced EnergyGuard, a .NET C# application that optimises energy consumption for multi-core systems by leveraging Intel's hybrid architecture, addressing the challenge of rising energy costs.
- Implemented data visualisation features displaying carbon offset values and cost-saving estimates, improving user-centricity and system usability.
- Integrated the service with Xbox Game Bar, allowing users to monitor data and adjust settings mid-game via an overlay.
- Worked closely with mentors from Intel and Microsoft to refine and improve the project.

Propositional and First-Order Logic Parser 2023

- Developed a Python parser capable of validating the syntax of both propositional and first-order logic formulas, utilising a parse tree structure.
- Implemented the analytic tableau method to check the validity of propositional and decidable first-order logic formulas.

Electricity Generating Footwear, Engineers Without Borders Society, UCL 2022

- Collaborated with a team of four to develop a piezoelectric shoe prototype that harvests walking movements to power LED lights sustainably while exploring feasible technology for improved efficiency.
- Designed electrical circuits and increased electrical efficiency of the product through iterative testing.

AWARDS AND RECOGNITION

- Achieved a first-class average of 82.8% across three consecutive years at UCL.
- Presented horizon scanning research on assisted death technologies at the UK Home Office in 2024.
- Valedictorian (Most Outstanding Student) for class 2022 graduates in Sunway College.

LANGUAGES

- English and Chinese Mandarin — Full Professional Proficiency
- Malay — Professional Working Proficiency