Tan Xue Wen, Rayner

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Summary

Self-driven and adaptable learner. Organized and meticulous. Experienced working as a Game Programmer and Mobile Programmer. An avid reader and experimenter. Cares about the human touch, morals, and values. A people-oriented individual, involved in service, having served 2 years as a fulltime volunteer.

Current / Past Project

Track Shooter (2024 – Present)
- Experimental project for fun, written in just pure C with no engine, using raylib for rendering.
- Uses a "no build system", build script is a simple c program that does all build steps (atlas packing, resource movement, cleaning build folder etc.) This build script also auto detects if the src .c file changes and rebuilds itself.
- Modified tower defense game. Towers become "stations" that modify "trains" that pass through. Trains move along a track and shoots at enemies.
- Check it out: https://x.com/hashtag/trackshooter?src=hashtag_click&f=live

VizDays (2023)
- Countdown visualization app. Native SwiftUI using SwiftData works with CloudKit, WidgetKit on Mac (catalyst) and iOS.
- More info: https://www.raynertan.me/projectsubpages/vizdayz

Just List It (2023)
- Day of day daily todo app with analytics. Native SwiftUI using Swift Charts works with CloudKit, WidgetKit on Mac (full native) and iOS.
- More info: https://www.raynertan.me/projectsubpages/justlistit

Work Experience

Temasek Polytechnic Adjunct Lecturer (2024 – Present)
- Taught Math & Physics Programming, and Programming in Game Engines.
- Scheduled to teach Computer Graphics programming, April 2025 Semester.

LandShark Games Pte. Ltd. (2 years cumulative 2016 – 2022)
- Full-time Game Programmer
- Implemented gameplay features for unreleased title
- Helped establish tools for the new 3D pipeline in the company
- Developed new player profile system, working on both backend & frontend.
- Provided update support for current IPs, increasing product stability.
- Designed and built a reusable client-server caching system.
- Established Unity iOS build pipeline, writing various tools and plugins.
- Worked on many systems including asset management enhancements, debug tools and environments, new gameplay features for new IPs, etc.

Volunteer Work (2 years: 2019 – 2021)
- Fulltime volunteer for The Church of Jesus Christ of Latter-day Saints, serving in the Australia Melbourne Mission.
- Served as the mission technology specialist, handling tech issues and support for 40 to up to 195 volunteers, scaling management corporate fleet of devices and solutions.
- Leader of 20-35 other fulltime volunteers, leading them in serving the community and working with various organizations to help those in need.

Ackcio Pte. Ltd. (3.5 months in 2023 as Intern Programmer)

- Set up CI/CD for android application product with Docker and BitBucket pipelines, unit testing and instrumentation tests.
- Documented hardware testing procedures and resolved bottlenecks from firmware team.
- Modularized hardware simulations to decrease dependencies and improve iteration cycles for remote engineers.
- Worked with hardware engineers doing hardware reworks.

Education	**Singapore Management University** 2022 – Present

Bachelor of Science in Computer Science
Major in Cyber Physical Systems (Fancy speak for IoT)

- Multiple distinctions, current cGPA of 3.98 / 4.0
- Research Assistant (main unity developer) for VR research project (2024). Worked on Meta Quest 2, building an immersive lesson solution to teach year 1 CS students basic data structures and algorithms (e.g. BST, AVL, red-black trees) using VR manipulatable tree nodes.
- *(I'll be honest, mainly here because living in Singapore, just got to have a degree for a safety net and to get past the AI filters on job applications. I am mainly working jobs on the side while I glide through school just to get that piece of paper. Nothing much here, please see my work experience and current projects above)*

Temasek Polytechnic 2014 – 2017
Diploma with Merit in Game Design & Development [GDD]

- Awarded the Lee Kuan Yew Award for Mathematics and Science
- Course Gold Medal, with perfect cGPA of 4.0 (full score 4.0)
- Achieved 27 Distinctions in diploma subjects such as Advanced Game AI, Game Production and Publishing, Game Development Project, Game Math and Physics, Game Modeling, Graphics Programming, and Game Design.
- Received the Infocomm Media Development Authority (IMDA) Excellence Award, the Jurong Port Special Industry Price, the Jurong Port Project Prize, and the Jurong Port Prize.

School of Science and Technology, Singapore [SST] 2010 – 2013
GCE Ordinary Level Certificate

- Achieved Top O-Level Performers award (2013)
- Awarded MOE Edusave Certificate of Academic Achievement (2013 & 2011)
- Received SST Achievement Award (2012 & 2011)
- Awarded North West Community Development Council Outstanding All Rounder Student Award – School Level (2011)

Project Experience (Refer to website linked above for more project details)	**Temasek Polytechnic** • Led team of 6, developed Tower Power, a Virtual Reality (HTC Vive), asymmetrical multiplayer game. Featured in showcase at Unite Singapore 2016. Main programmer for networking design and implementation. The game features hundreds of A* led enemy agents networked across clients. Tower Power was also awarded "Best Project" at TP InfoTech Day 2017.

- Developed Chessgeon in Unity Game Engine, a unique combination of card games and chess. Features optimized A* algorithms running on mobile.
- Led team of 4 in development of Cellulose, an action strategy mobile game involving 250 flocking-enabled AI cell units controlled in groups. Made with Unity Game Engine. Cellulose is a finalist in SiTF Awards 2016.

Personal Projects
- Developed utility tools set for Unity Game Engine. Features flexible, quickly implemented animation functions for all GameObjects, similar to Apple's SKAction. Designed using Composite pattern.

Achievements & Awards	- Singapore Computer Society – IT Youth of the Year Award Finalist (2019) - SiTF Awards – Best Presenter & Project Special Mention Awards (2016)
Co-Curricular Activities	**Temasek Polytechnic Game Design & Development Student Interest Group** - President (AY1516 – AY1617) - Executive Committee Member (AY1415 – AY1617) - Organized and held 3 school game jams - Initiated and ran Unity, Gamemaker, and GIMP workshops for freshmen **School of Science and Technology, Singapore Information Communication Technology Talent Development Program** - Pioneer member and Secretary (2012 – 2013) - Executed 3 EduCamps (unconferences discussing latest technology applications in the field of education) as part of the planning team
Miscellaneous	Contributed to self-initiated service group, raising SGD$4000 for Japan Red Cross to aid in disaster relief efforts after the 2011 Tōhoku earthquake.
Interests	Reading, fountain pens, Chinese calligraphy, collecting collectables, art books, and game soundtracks, Pokémon, and plush toys. Also enjoys scenic views like those of Yosemite and Sakura Season in Shinjuku Gyoen. Enjoys quiet time to reflect, ponder, and journal.
References	**Paul Naylor** Co-founder LandShark Games Pte. Ltd Email: paul@landsharkgames.com	**J Patrick Garth** Managing Director Pacific Basin Negotiators Pty. Ltd. Tel: +61 417 360 816