

Profile

Hands-on 0-1 Product Innovation Leader — Create systems, Bless people, Seek truth

Proficiencies

- C/C++, Python, Javascript, Swift/SwiftUI
- MacOS/Linux/iOS Development
- Rapid Prototyping, 0-1 Product Development
- Mentoring, Programme Design, Technical Writing
- AI-Assisted Development, Agentic AI

Expertise

- Software Architecture/System Design
- AI/ML, GenAI Engineering
- Computer Graphics/Computer Vision
- UI/UX/Information Visualization

Professional Experience

Screening Eagle Technologies

R&D (Jan 2020 - Present)

(Jan 2023 - Present)

- Deputy Lead for R&D
 - Led GPR Insights product team from crisis mode to stable 2-month release cadence
 - Led research direction and objectives for R&D projects
 - Pioneered CV/ML for Visual inspection, achieving first accredited Drone Facade AI
 - Pioneered GenAI for Visual inspection, creating new product line
 - Developed CV/ML for Subsurface Data applications, resulting in new key features
 - Pioneered AI-assisted development workflows, tooling and best practices
- SW. Engineer (CV/ML) *(Jan 2020 - Jan 2023)*
 - Implemented drone photo processing and automation applications (SwiftUI)
 - Architected & implemented LOD Generation for GPR Data Streaming (AWS & Python & C++)
 - Implemented Data collection and cleaning pipelines (Python)
 - Implemented Boston Dynamics Spot control stack (Python & ReactJS)
 - Implemented iPad LiDAR 3D scanning (Swift & C++)

Autodesk

Memento/ReCap Photo, Delivery (Jan 2015 - Dec 2020)

(Jun 2018 - Dec 2020)

- Sr. SW. Engineer, Technical & Engineering Practices Lead *(Jan 2015 - Jun 2018)*
 - Champion for SWD & CI/CD Best Practices
 - Architected & implemented Install Coordinator (C++)
 - Architected & implemented Unit Test (GTest) and Component Test frameworks (Robot)
 - Contributed to Install UI and UI workflows (Electron & ReactJS)
- SW. Engineer *(Jan 2015 - Jun 2018)*
 - Designed & implemented a CI/CD framework for Jenkins Pipeline Shared Library (Python)
 - Architected & refactored UI framework and 3D manipulation tools (C++)
 - Collaborated with UX to build UI workflows for Desktop and VR (C++ & QT)

Volunteer Experience

- Elder Geek/Head of Projects *GeeksHacking Community (Jun 2019 - Present)*
- Mentor/Trainer/Ministry Lead *The Navteens Singapore (Dec 2009 - Present)*
- Volunteer/Officer *Boys Brigade Singapore (Jan 2005 - Apr 2019)*

Personal Projects

- [ScriptureBot](#): A Telegram Bot for Bible Access (Golang & GCP)
- [Discipleship Journal](#): A web app for Bible Study and Discipleship (Golang & GCP)
- [Agent Harness](#): A repository bootstrap for AI agents (Python)

Education

M.Comp in C.S.

National University of Singapore (Jan 2017 - Jul 2019)

B.Sc in C.S. in R.T.I.S (Minor in Mathematics)

DigiPen Institute of Technology (Sep 2012 - Aug 2015)