

## 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
    - \* Diagnosed and transformed processes, reducing churn by >60%
    - \* Introduced estimates and planning, improving transparency and predictability 10x
  - 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 *(Jun 2018 - Dec 2020)*
  - Champion for SWD & CI/CD Best Practices
  - Architected & implemented Download & Install Orchestrator for Autodesk Installer (C++)
  - Architected & implemented Unit Test (GTest) and Component Test frameworks (Robot)
  - Implemented Download & 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

- Head of Projects
- Ministry Leader
- Officer

*GeeksHacking Community (Jun 2019 - Present)*

*The Navteens Singapore (Dec 2009 - Present)*

*Boys Brigade Singapore (Jan 2005 - Apr 2019)*

## Personal Projects

- [ScriptureBot](#): A Telegram Bot for Bible Access (since 2017) (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)*