

## Curriculum Vitae

**Terence Lim**

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<https://terence9213.github.io/>

### [Education]

Bachelor of Science, Information Systems Singapore Management University 2017

Second Major: Marketing

Distinction in Software Engineering Module

Distinction in Technology and World Change Module

Distinction in Creative Thinking Module

Distinction in Internet of Things Module

Exchange Program, University of St Gallen, Switzerland 2016

A-Level Certification, Catholic Junior College 2010

O-Level Certification, St Joseph's Institution 2008

Diploma in Entrepreneurship Development, ERC Institute 2008

## [Work Experience]

### Refract Technologies

Software Engineer R&D (Jan 2022 - Aug 2024)

#### Responsibilities

- Research and Development
- Worked in a cross functional, multidisciplinary R&D team
- Collaborated with game developers, marketing, and business development
- Support for events and demonstrations
- Developed proprietary systems
- Bug fixing and problem solving

#### Projects

- **AXIS**  
Motion capture hardware devices for gaming and sports  
IMU based wearable devices that communicate wirelessly to a dongle, providing gyroscope, accelerometer and magnetometer readings that are computed into accurate rotational data
- **Steam VR Driver**  
Developed Steam VR driver for AXIS to interface with Steam VR games  
Ensuring compatibility with common VR games
- **Proprietary Sensor Calibration Solution**  
Collaborated with firmware and hardware specialists to develop a single step calibration method for quick and accurate on-body sensor calibration
- **Proprietary Virtual Skeletal System**  
Developed an in-house virtual skeletal system to enable advanced body movement estimation and interpolation
- **Visualization and Debugging Tools**  
Collaborated with UI specialist to develop 3D visualization tools for end user control center and internal R&D and debugging
- **Tools and Support**  
Worked closely with game dev team and SDK developer to build tools and support development of games, demo prototypes, and proof-of-concept projects utilizing AXIS hardware

## **Kioxia Singapore (Formerly Toshiba Memory Singapore)**

Analyst Programmer (Apr 2018 - Dec 2021)

### **Responsibilities**

- In-house application development (internal business applications)
- Research and Development
- Redesign legacy systems
- Database Management
- Environment: Windows Server / SQL & Oracle Database / Tortoise SVN

### **Projects**

- **Business Intelligence Visualisation Tools**  
Built graphical BI tools for sales and marketing teams on company intranet
- **Leave Application System**  
Built Leave Application system from the ground up  
Liaise with HR team to gather requirements
- **Time Management System**  
Built employee time in/out tracking system with overtime application  
Automated data collection from 3rd party card access security system  
Integrated with leave application system
- **Automated Invoice Printing Solution**  
Built an automated solution to generate invoice PDFs and send to printing queue  
Utilising SSRS Report Builder, batch scripts and VBScript
- **Door Access User Interface**  
Created a simple browser application HTML/CSS/Javascript  
Interface with 3rd party phone system API
- **Invoice Optical Character Recognition (OCR) Processing (Currently in progress)**  
Research open source OCR solutions to process client invoices for database storage  
Utilizing Tesseract for Command Line, XpdfReader and Nlohman JSON C++Lib

## **KNOREX**

Internship (Summer 2016)

### **Responsibilities**

- Web development
- Search Engine Optimisation (SEO)

### **Projects**

- **Product Website Redesign**  
Utilising HTML/CSS templates  
Research modern web design UI/UX best practices  
Research and implement SEO

## **Omega Marketing Group**

Internship (Summer 2013)

### **Responsibilities**

- WordPress Web Development
- Write blog articles/ business articles
- Ad hoc duties

## **[Technical Skills]**

### **Programming**

- C++, C#, ASP.NET, Java, Javascript, HTML/CSS, SQL

### **Development Tools**

- Visual Studio, Netbeans, SQL Server Management Studio, SQL Server Reporting Services, Toad for Oracle, Unreal, Unity

### **Source Control**

- GitHub, BitBucket, Tortoise SVN

### **Others**

- Photoshop, Audacity, Ableton

## **[Personal Accomplishments]**

### **Developed a Sine Wave Audio Synthesizer in Java**

- Generated frequency table based on 12-Tone Equal Temperament
- Wrote a Sine wave function that outputs to the sound buffer at 44100Hz rate

### **Developed a Browser Based Interactive Keyboard Synthesizer**

- Utilized Javascript Web Audio API and HTML/CSS
- <https://terence9213.github.io/synth.html>

### **Developed Eternity Quest, a Browser Based Retro Style Vertical Shooter**

- Utilized Javascript Canvas animation tool
- 100% Javascript game engine (no 3rd party library or game engine)
- <https://terence9213.github.io/eternityquest.html>

### **Developed an interactive fireworks simulation**

- 100% Javascript animation engine with time dilation function
- <https://terence9213.github.io/fireworks.html>

## **[Co-Curricular Activities]**

### **SMU Climb Team Marketing Manager 2015**

- Coordinated publicity campaign in conjunction with freshman induction period to boost publicity and increase membership of the club

### **SMU Gravitical Marketing Director 2015**

- Organised one of the largest rock climbing competitions in Singapore

### **St Joseph's Institution Robotics Club Chairman 2008**

- Organised orientation and training for new club members