

THOMSON GUNARDI TEGUH

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OVERVIEW

A self-motivated Software Developer with specialization and passion in Game Development and Computer Graphics

EDUCATION

- **Bachelor of Science** (Computing and Software Systems), 2015 – 2017, University of Melbourne
Weighted Average Mark: 84/100 (First Class Honours)
- **International Baccalaureate** (Bilingual Diploma), 2012 – 2014, Sekolah Pelita Harapan International
Score: 39/45

PROJECTS AND EXPERIENCE

Retro Rabbit - Ludum Dare 38: A Small World, April 22 2017 – Present

- **Summary:** A spherical endless runner with a world that deflates over time. The goal is to survive as long as possible by plugging leaks, eating carrots, and dodging obstacles
- **Language & Framework:** Unity with C#
- **Role:** Implement gameplay and movement mechanics for the spherical playing field using 3D mathematics
- **Link:** <https://ldjam.com/events/ludum-dare/38/retro-rabbit>
<https://play.google.com/store/apps/details?id=com.CrunchyCarrot.RetroRabbit>

Terrain Generator - Project, September 7 – September 21 2016

- **Summary:** A procedural terrain generator that is fully shaded with a simple day & night cycle and water
- **Language & Framework:** Unity with C#
- **Role:** Apply Diamond-Square algorithm, generate each polygonal surface, and shading each surface with Phong Shading and Blinn-Phong Illumination
- **Link:** <https://ryuvos.itch.io/terraingen>

Triangle - Project, July 24 – October 22 2017

- **Summary:** An app that provides access to Google Maps and Location-Based Augmented Reality with a chat functionality to help users track and find a friend's location
- **Language & Framework:** Ionic 3 and Three.js with JavaScript
- **Role:** Create Augmented Reality from scratch using Geolocation, Three.js, and Rotation Vector Sensor

SKILLS

- **Graphics Programming:** Shaders, HLSL, Unity ShaderLab, Gouraud Shading, Phong Shading, Blinn-Phong Illumination, Marching Squares, Diamond Square, Texture Mapping, Texture Filtering, Anti-aliasing
- **3D Mathematics:** Vectors and Matrices, Quaternions, Homogeneous Coordinates, Transformations, Change of Basis, Trigonometry, Calculus
- **Programming Languages:** C (2 years), C++ (6 months), C# (2 years), Java (2 years), Python (6 months), JavaScript (6 months)
- **Frameworks and Tools:** Unity3D, Three.js, Git

AWARDS AND ACHIEVEMENTS

- **1st Place Award** - UNIHACK, July 30 – July 31 2016, <https://devpost.com/software/mangodb>
- **Most Inspirational Award** - NASA SpaceApps Challenge, April 22 – April 24 2016, <https://2016.spaceappschallenge.org/challenges/tech/bring-your-own-solution/projects/left-mouse-button-to-bend-space>