

Varanon Austin Pukasamsombut

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EDUCATION

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| ❖ University of California, San Diego | Fall 2012 – Spring 2017 | Cumulative GPA: 3.73 |
| BS, Electrical Engineering (Machine Learning) | | |
| ❖ Tohoku University, Japan | Research Exchange Student 2014 - 2015 | |

WORK EXPERIENCE

Confetti Special FX – Full Time Graphics Programmer 8/2017 – Current

- Part of a team responsible for the development and maintenance of the StarVR SDK, a head-mounted display system aimed at business-to-business virtual reality services. In charge of implementing new tools and creating unit tests for guaranteeing clients to utilize their VR headsets with optimal graphics and performance.
- Worked with the development of various plugins to utilize with the StarVR SDK such that it can work effectively with different types of motion tracking systems and be used with some game engines, such as Unreal Engine.
- Created various sample tests to showcase the usage of our cross-platform rendering framework, "The Forge."

MIT Lincoln Laboratory – Summer Internship 5/2016 – 8/2016

- Worked in the Advanced Capabilities and Systems group on developing computer vision system that is to be used on an unmanned aerial vehicle (UAV)
- Designed and integrated a compact, mountable platform for autonomously detecting vehicles.
- Implemented a cascade classifier using OpenCV, a convolutional neural network using a supervised learning algorithm structured with the Caffe deep learning framework, and data collection tools using Matlab.

PROJECTS

Sandma - Multiplayer Dungeon Party Game 4/2017 – 6/2017

- A competitive video game with OpenGL rendering and multiplayer connectivity made by a team of 7 people.
- Part of the graphics engine team, with responsibilities in developing the 3D rendering pipeline, scene structure and organization, importing animations, game mechanics implementation, and general game design.
- Quarter project made in the span of 10 weeks in a rapid development environment.

Project Agygio - Virtual Reality Survival Adventure in Unity 3/2017

- Virtual reality game where players scavenge for items, craft weapons, and battle enemies to survive the night.
- Uses procedurally generated terrain, simple enemy AI, an intuitive inventory interface, and a crafting system.
- Made for both the Oculus Rift and HTC Vive with a focus on proper design methodologies for virtual reality.

Greed Island - Virtual Reality Project in OpenGL for the HTC Vive 12/2016

- Course project designed to combine advanced computer graphics techniques, done in a team of two people.
- Designed and programmed a cartoon-esque island using procedurally generated terrain, trees, and buildings, shadow mapping, shader programming, and virtual reality integration.
- Programmed to run in real-time using a forward rendering pipeline, written in C++ with OpenGL.

SKILLS

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- Programming Languages: C, C++, C#, Java, Python, Matlab, GLSL
 - Graphics APIs : OpenGL, DirectX
 - Experience with Blender, Unity, OpenCV, Git, Linux, ROS
 - Intermediate fluency in Japanese

ORGANIZATIONS

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| • Tau Beta Pi Honor Society – Student Member | 11/2015 – Present |
| • Thai - American Youth Leadership Camp Wat Pa – Yearly Camp Counselor | 9/2012 – 9/2017 |