

Austin Pukasamsombut

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EDUCATION

- ❖ 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 Interactive – Graphics Programmer 8/2017 – 10/2018

Transistor – Port for Nintendo Switch

- Three month project with Supergiant Games to port the popular indie game, *Transistor*, to the Nintendo Switch platform. Responsibilities included modifying the existing content pipeline, reworking the shader reflection system, optimizing loading times, and fixing graphical bugs.
- Worked directly with the engine's C# code, shaders, and C++ code generated through a transpiler.

StarVR – Virtual Reality SDK

- Part of a team in charge of developing and maintaining the StarVR SDK, a head-mounted display system aimed at business-to-business virtual reality services. Responsibilities included implementing new tools, creating unit tests, and integrating compatibility with various tracking systems.
- Worked with the development of various plugins to work effectively with different types of motion tracking systems and added functionality to Unreal Engine to utilize multiple viewports for compatibility with the StarVR system.

The Forge – Rendering Framework

- Created various sample tests to showcase the usage of our cross-platform rendering framework, "The Forge", in both DirectX 12 and Vulkan.

MIT Lincoln Laboratory – Summer Internship 6/2016 – 8/2016

- Worked in the Advanced Capabilities and Systems group on developing a computer vision system that is to be used on an unmanned aerial vehicle (UAV) 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.
- One of two graphics engineer with responsibilities in developing the 3D rendering pipeline, scene structure and organization, importing animations, game mechanics implementation, and general game design.

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

- 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

- Programming Languages: C, C++, C#, Java, Python, Matlab, GLSL, HLSL
- Graphics APIs : OpenGL, DirectX 11, DirectX 12, Vulkan
- Experience with Blender 3D, Autodesk Maya, Unity, OpenCV, Git, Perforce, Linux, ROS
- Intermediate fluency in Japanese

ORGANIZATIONS

- Tau Beta Pi Honor Society – Student Member 11/2015 – Present
- Thai - American Youth Leadership Camp Wat Pa – Yearly Camp Counselor 9/2012 – 9/2018