JAMORN **SRIWASANSAK**

Graphics Engineer, Polyphony Digital Inc.

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Education

Graduate Research Student University of Tokyo **Sep 2018 - May 2020**

- Studied and investigated basis functions for precomputed radiance transfer.
- Investigated a novel data structure for accelerating photon mapping.
- Note: As of July 2020, my advisor transferred from the University of Tokyo to the University of Waterloo.

Master of Information Science and Technology (GPA 4.00/4.00) University of Tokyo **Sep 2016 - Sep 2018**

- Studied and investigated many-light rendering techniques especially the weak singularties problem.

Bachelor of Computer Engineering (First Honor, GPA 3.67/4.00) Chulalongkorn University **Jun 2011 - May 2015**

Experience

Graphics Engineer, Polyphony Digital (Tokyo, Japan) **Aug 2020 - Now**

- TBA

Graphics Research Intern, Facebook Reality Labs (Redmond, WA , USA) **July 2019 - Oct 2019**

- Investigated coarse pixel shading and sampling techniques.

Graphics Research Intern, Polyphony Digital (Tokyo, Japan) **Aug 2018 - Sep 2018**

- Investigated and implemented several real-time specular occlusion techniques using OptiX and OpenGL.

Contract Software Developer, Lumio3D (Bangkok, Thailand) **May 2015 - Dec 2015**

- Implemented a Physically Based Rendering framework with an environment map pre-filtering on WebGL.
- Implemented Fast Approximate Anti-Aliasing, Horizontal Based Ambient Occlusion, depth peeling Order-Independent Transparency and High Dynamic Range bloom for devices without Multiple Render Targets support.
- Implemented a 3D mesh compression for progressive 3D mesh streaming.

Software Developer, VC Group (Bangkok, Thailand) **Jul 2014 - Aug 2014**

- Optimized Python code and MySQL stored procedures for analyzing Call Detail Record(CDR) resulting in a 5x increase in performance. This allows the program to keep up with the number of records required by the customer.

Developer Intern, Microsoft Innovation Center Thailand (Bangkok, Thailand) **Apr 2014 - Jun 2014**

- Developed three different Windows Phone Applications using Unity3D and Microsoft Presentation Foundation.

Publications

Jamorn Sriwasansak, Adrien Gruson, and Toshiya Hachisuka. “Efficient Energy-Compensated VPLs using Photon Splatting”. In: *Proceedings of the ACM on Computer Graphics and Interactive Techniques* 1.1 (2018), p. 16.

Projects

Mortar (2020)	A physically-based renderer utilizing Vulkan ray-tracing API. The renderer supports features such as obj-mesh loading, a GGX microfacet material and a screen space error distributed as blue-noise distribution [Heitz et al. 2019].
Wurst Renderer (2019)	A C++ offline rendering framework that implements several complex rendering papers (e.g. BDPT, PSSMLT, SPPM, PRT). Due to confidentiality of some projects, the source code of the framework is only available upon request.
Unified Particle Engine (2018)	A CUDA and OpenGL implementation based on unified particle physics [Macklin et al. 2014]. It supports rigid bodies, ropes, clothes, fluid and deformable bodies.
EVPLP (2017)	An OpenGL and OptiX rendering framework that contains several rendering techniques such as path tracing, instant radiosity and progressive photon mapping.
Pic2Verilog (2014)	An application based on the OpenCV framework that can automatically generate Verilog code from a hand-drawn logic gate design.

Awards and Honors

- Japanese Government (MEXT) Scholarship (2016 - 2020)
- First Honor Degree, Computer Engineering, Chulalongkorn University (2015)
- Outstanding Student Award, Computer Engineering, Chulalongkorn University (2014)
- Proceeded to ACM-ICPC Thailand round (2013)
- Bronze Medal, 6th Thailand Olympiad in Informatics (2010)

Skills

Proficient:	C++
Experienced:	CUDA, Java, Python, javascript, NVIDIA's Optix, Vulkan, OpenGL, WebGL

Languages

Thai:	Native
English:	Working Proficiency (TOEFL-iBT: 109)