

# TA-KAI LIN (David Lin)

## Experience

### Software Engineer (NOV 2015 - Present)

Company: Rayark, Taipei

- Complex UI Programming
- Engine Development
  - Software Architecture
  - Graphics Framework
  - Asynchronous Programming
- Physically-Based Rendering
- Unity Engine
- Mobile Platform Development (iOS/Android)
  - Debugging
  - Build / Deployment
  - Native API
- PlayStation 4 Platform Development
  - Platform API
  - Optimization

### R&D Intern (AUG 2013 - FEB 2014)

Company: Mozilla, Taipei

Face-Detection integration in Firefox Browser

### Summer Intern (JUL 2011 - AUG 2011)

Company: SDI, Taipei

- Ogre Engine
- Screen-Space Ambient Occlusion

## Publication

*Voxel-based 3D Model Reconstruction from Images and Silhouettes*

Master Thesis - 2015

Advisor: Yung-Yu Chuang

## Education

<b>Master of Computer Science</b>	2013 - 2015
National Taiwan University	GPA 3.48
<b>Bachelor of Computer Science</b>	2009-2013
National Taiwan University	GPA 4.0

## Certificates

<b>Machine Learning</b>	March 2019
Coursera ( <a href="#">Credential ID GW8ZG4B5L994</a> )	

## Personal Information

### Contact

Location: Taipei, Taiwan

Citizenship: Taiwan

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Website: <https://davll.me>

Disability: Hearing Impaired

### Technical Skills

- GPU Programming
- 3D Math/Linear Algebra
- Concurrent Programming
- UI Programming
- System Programming
- Game Engine Architecture
- HDR Lighting
- Physically Based Rendering
- Virtual Reality

### Courses

- Computer Vision
- Machine Learning
- Computer Graphics
- Digital Image Processing
- Digital Visual Effect

### Programming Languages

- C/C++/C#/Rust
- GLSL/HLSL/Cg
- Python
- Octave/Matlab/Julia

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## Selected Projects

### Mobile Game Engine Prototype (Rayark Inc.)

- Solo project
- Rust Language
- Functional Programming
- Concurrent Programming
- OpenGL Renderer
- Resource Management
- Scene Representation
- Entity Component System

### Sdorica - Guild Dashboard (Rayark Inc.)

- Functional Programming in C#
- Model View Controller Pattern with Asynchronous Coroutine
- Job Scheduling
- Team work

### VOEZ 1.1 - Song Selection System (Rayark Inc.)

- Model View Controller Pattern with Asynchronous Coroutine
- Texture Caching
- Object Pooling
- Team work

### Voxel-based 3D Model Reconstruction from Images and Silhouettes (Master Thesis)

- 3D Reconstruction from input images and silhouettes images
- Voxel-based graph cut optimization

### Morf - GPU Accelerated Image Morphing (VFX Homework)

- Project Repository: <https://github.com/davll/morf>
- OpenGL Shader to compute morphing
- Qt GUI
- Two-member team work

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## References

### Mr. Alvin Chung

CTO at Rayark Inc.

email: [alvin@rayark.com](mailto:alvin@rayark.com)

### Dr. Wei-Chao Chen

Co-Founder at Skywatch Inc. and Chief AI Advisor at Inventec Inc.  
(My supervisor during 2011 intern)

email: [weichao.chen@gmail.com](mailto:weichao.chen@gmail.com)

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