

# Larry Zhao (Luolei) - Software Developer

## WORK EXPERIENCE

### Boeing Global Services - Flight Simulator Systems Engineer

August 2018 - Current

- Supported Flight Simulators for F-15, F-22, and F-16 Fighter Jets.
- Integrated hardware and software, coordinating networking, virtual disk systems, shaders, and projector controls.
- Coordinated with experts and professionals in a variety of fields utilizing consistent communication and extensive documentation.

### Soar Technology Inc. - Software Engineer Intern

Summer 2017

- Developed interactive data visualizations for large scale military training projects while adapting to rapidly changing client needs. Visualizations were presented at the iFEST 2017 conference.
- Researched and developed new means of categorizing student behavior in adaptive training simulations using logical AI programming concepts.

### Northwestern Research Computing - Visualization Developer

February 2016 - September 2017

- Contributed to the development of omegalib, a customized graphics library specialized for large 3D visualization displays, utilizing OpenGL and GLSL.
- Facilitated the development and support of Firefly, an interactive visualization application utilizing OpenGL parallelization for galaxy simulations.
- Pioneered the creation of a dynamic web interface for an Interactive 3D visualization displays at Northwestern's Center of Advanced Molecular Imaging (CAMI).
- Designed, implemented, and developed a variety of javascript apps for the CAMI wall including 3D model viewers, galaxy viewers, video playback modules, and volume rendering applications.

## LEADERSHIP

### Founder of "Pioneers of Interactive Entertainment"

- Launched the Premier Video Game Dev Club at Northwestern.
- Established an indie video game development community through regular mentorship, industry speakers, game jams and workshops events that attract upwards of 200 people.

### Industry Relations Chair for IEEE Northwestern Student Chapter

- Spearheaded the establishment of the IEEE NU Project Showcase. Connects companies and ambitious students in a project-oriented networking event with over 40 annual participants.
- Strengthened the IEEE NU's "IE-Cubed" Technical Program. Mentored practical, project-oriented student groups that brought classroom concepts to the real world.

## LINKS AND CONTACTS

[luoleizhao2018@u.northwestern.edu](mailto:luoleizhao2018@u.northwestern.edu)

614-707-3805

<https://www.linkedin.com/in/luoleizhao/>

<https://github.com/DrDoak>

## EDUCATION

**M.S, Computer Science 2018**

**Northwestern University**

GPA: 3.72/4.00

## SKILLS AND SOFTWARE

- Professional Experience in C#, C++ , Python, and Javascript.
- Extensive experience in data visualization and graphics often with extensive Shader use.
- Academic experience with functional/logical programming, machine learning and PostgreSQL

## PROJECTS

### Little Deity

- 'Metroidvania' Side-Scroller Showcase project made with Unity
- Created custom Scripting plugin for easy Game Cutscene creation with embedded Functional Language.

### Quintessence

- Story based Unity project focused on dynamically constructed prefabs

### Project Sol

- AI Research Project focused on NPC Knowledge Representation.

### Lua

- Assymetrical Multiplayer 2D Unity Project

## ADDITIONAL EXPERIENCE

- Freelance Video Game Artist specializing in 2D Technical Art and Sprite Animation.
- Teaching Experience. Instructor of Programming at St Louis Modern Chinese School.
- Experience in Agile and Scrum

