James **Liu**

SOFTWARE ENGINEER ·

2210 Rock Street Mountain View CA, 94043 Apt 36

770-317-0421 | contact@jamessliu.com | jamessliu.com | james7132 | jamessliu

Skills

Programming	C++, C#, Python, C, Java, Go, Rust, Elixir
Front-end	Vue.js, Vuex, React, HTML5, SASS
Back-end	Flask, Django, Phoenix, Redis, SQL (MySQL, Postgress), BigTable
DevOps	Google Cloud Platform, Docker

Education

Georgia Institute of Technology   *Atlanta, Georgia*
B.S. IN COMPUTER SCIENCE   *Aug. 2012 - Aug. 2016*

Experience

Google   *Mountain View, California*
SOFTWARE ENGINEER   *Jan. 2016 - Present*
- Developed and utilized machine learning models at scale to improve the data quality of Google Maps.
- Designed and implemented deep learning pipelines to extract real world information from disparate data sources (StreetView, satellite imagery, Android location data) to update the basemap.
- Leveraged modern big data and machine learning technologies (Google Cloud Dataflow, Tensorflow, containers,uand many other Google internal technologies like Colossus, Borg, etc.)

Georgia Tech College of Computing   *Atlanta, Georgia*
UNDERGRADUATE RESEARCHER   *Jan. 2014 - Dec. 2015*
- Researching program analysis with Professor Bill Harris.
- Tested applications of Craig interpolation and unwinding trees in concurrency and complexity analyses.

Georgia Tech School of Electrical and Computer Engineering   *Atlanta, Georgia*
LEAD TEACHING ASSISTANT   *Jan. 2014 - Dec. 2015*
- Taught ECE 2013: Digital Design lab
- Taught FPGA programming, VHDL, computer architecture design, assembly programming, and rapid prototyping techniques.

Open Source

Hourai Teahouse
FOUNDER AND TECH LEAD   *Jun. 2016 - Present*
- Led and managed a hobbyist group of game developers from around the world
- Created open source video games and video game development assets, mostly for Unity3D.
- Organized a multi-disciplinary team of technical and creative individuals (3D artists, musicians, software engineers, etc.)
- Developed Tapioca, a self-hosted game distribution platform, written in Go, modeled after Valve's SteamPipe distribution network.
- Developed Backroll, a C# reimplementation of the popular fighting game netcode engine GGPO.

DanmakU
CREATOR AND MAINTAINER   *Aug. 2015 - Present*
- Middleware for creating high performance simulation of large quantities of similar objects, optimized for bullet hell games.
- Maximizes performance by optimizing CPU and cache utilization via lock-free mulithreading, data-oriented programming, and SIMD parallelism.