

Chang-Yuan Shih

7710 Main St., Apt. 1722, Houston TX 77030 • 832-713-2465
cyshih@rice.edu • cyshih.me

EDUCATION

Rice University

Houston TX | Dec 2021

Master of Computer Science

- GPA: 3.95/4.0
- Highlighted courses: Web Development & Design • Parallel Computing • Database System Implementation • Object-Oriented Programming & Design

National Taiwan University

Taipei, Taiwan | Jan 2019

B.S. in Computer Science and Information Engineering

- GPA: 3.85/4.3; Last 60 - 4.18/4.3
- Honor: Presidential Award (Ranked first 2018 Fall: 4.3/4.3)
- Teaching Assistant for course Data Structures and Algorithms
- Managed CSIE department's workstations that serves thousands of students and faculties

EXPERIENCE

Samsung SARC | Software Engineer Intern

Austin TX (Remote) | May 2021 - Now

- Project: **GPU Compiler Fuzz Testing** - Automated the testing of GPU compiler by creating a toolkit working with my modified open-source tool GraphicFuzz. Effortlessly generates fuzzed test inputs, runs the tests, and reduces the error with my customized GF reducer for easy error identification
- Helped the team to identify multiple compiler errors with one single shader test run

Academia Sinica | Research Assistant

Taipei, Taiwan | Apr 2018 - Jul 2020

(Internship: Apr 2018 - Jun 2019, Full-time Assistant: Jan 2020 - Jul 2020)

EMCLab, Research Center for Information Technology Innovation, Prof. Pi-Cheng Hsiu

- Distributed deep learning (DDL): Experiments for DDL strategies (ex. Synchronous Ring/Parameter-Server) for our new DDL platform framework with TensorFlow on AWS/GCP. Found and optimized the communication bottleneck for the DDL framework
- Embedded DL: Real-time Keras-based SSR-Net (Age estimation network) on ARM-based device
- Intermittent DL: New convolution strategy concept for intermittent IoT devices

Beyond Media Global | Technology Intern

Taipei, Taiwan | Nov 2018 - Jun 2019

- Project: **Adego** - automated clients' weekly report processing by developed the full-stack of a Ruby on Rails, Python, PostgreSQL based SEO data retrieval and analysis platform
- Full-stack development for clients' website, IT support

Freelancer | Full-Stack Web Developer

Remote | Dec 2019 - Now

- Clients' website design and development on a piecework basis; server and website maintenance
- Clients: Soar Cloud HR Solutions • ShangKai Steel • Lohas Glasses • and more

The LanYang Ballet | Principal Dancer

Taipei, Taiwan | Jul 2008 - Aug 2020

- Fifth place in international ballet competition "Taiwan Grand Prix, 2013" among other professionals
- Practiced ballet since kindergarten and kept performed on stage annually since 2005

CURRENT PROJECTS

HS Modeled COVID-19 World Map | Rice University

Houston TX | Fall 2020 - Now

- A playable, self-updating COVID map powered by Google Data Studio and Python backend, Data analysis using Recurrent Neural Network on PyTorch
- Concept proof: Whether Hope-Simpson Epidemic Influenza Model could be applied to COVID-19
- Technologies used: React.JS, Python, PyTorch, Tableau, Google Data Studio, PostgreSQL

SKILLS

C • C++ • Python • Java • HTML/CSS • JavaScript • React JS • SQL • Ruby • Ruby on Rails • Shell Script