

Chengzhi (Charlie) Gu

Senior Software Engineer @ Pinterest

(+1) 415-248-6575
guyue1994@hotmail.com
github.com/czgu
www.linkedin.com/in/charliegu/

EXPERIENCE

Senior Software Engineer @Pinterest, San Francisco, CA

June 2017-Present (internship Jan - May 2015, Jun - Aug 2016)

- Pioneered and developed Querybook, a big data IDE web app built with React and Flask. It is one of the most widely used internal tools at Pinterest.
- Refactored and contributed to the open-source Querybook (querybook.org). Rewrote the code to be plugin-based to separate internal logic. Wrote comprehensive documentation for users and developers. Setup Github actions for CI/CD.
- Contributed to Internal Tools Platform, which is a collection of libraries and pipelines to make internal web development easier. Implemented a Docker based VSCode dev environment and improved the Jenkins Groovy pipeline.
- Designed and kickstarted multiple data tool projects such as Flohub (UI-based SQL query scheduler) and WQuery (template-based query UI).

Undergrad Research Assistant @University of Waterloo, Waterloo, ON

Sept 2016-Dec 2016

- Developed a network motif detector based on mfinder to analyze large graphs under supervision of Prof. Semih Salihoglu.

Software Engineer Intern @Microsoft, Redmond, WA

Sept 2015-Dec 2015

- Improved and productionized an anomaly detector based on the random forest to run on Cosmos.
- Developed a support ticket categorizer alongside a website for manual correction.

Software Developer (Co-op) @Osellus Mobile, Toronto, ON

May 2014-Aug 2014

- Developed an animation creator using Cocoa which can export animations that can be played on Mac and IOS.

PROJECT HIGHLIGHTS

Querybook

Sept 2017 - Present

React/Redux, Flask, Celery, SocketIO, ElasticSearch

- A Big Data Query IDE with collaborative editing and visualizations.
- Can execute many queries with live updates by leveraging Celery and SocketIO.

WebGL Engine

June 2017 - Nov 2017

WebGL, browserify

- A 3D graphics renderer built with vanilla JS.
- Supports terrain/water rendering, skybox, lighting.

SKILLS

Languages

- Typescript
- Javascript
- Python
- C/C++
- Groovy
- Bash
- SQL

Technologies

Web

- React
- Redux
- Mobx
- D3
- Next.js
- WebGL

Backend

- Docker
- Flask
- Celery
- SQLAlchemy
- Gevent

Databases

- MySQL
- Redis
- ElasticSearch

EDUCATION

University of Waterloo

Sept 2012 - Dec 2016

Bachelor of Mathematics

Majored in Computer Science,
Combinatorics & Optimization
3.99 GPA