JINGXIAN FAN

88 Hillside Blvd, Apt803, Daly City, CA 94014 | jingxian0317@gmail.com | 765-637-1512

Education

Purdue University | M.S. of thesis in Industrial Engineering | GPA: 3.8/4.0 *2015.08 ~ 2016.12*

- Computational Science & Engineering Graduate Program

Zhejiang University | B.S. in Engineering | GPA: 3.8/4.0 *2011.09 ~ 2015.05*

Skill

Language: Proficient in: Java, Python, Matlab, SQL, R; Intermediate: C/C++

Web Developing: HTML/CSS, jQuery, Angular, Vue, Bootstrap, d3js, MySQL, aiohttp, Flask, Django, jinja2, Spring, Hibernate, MVC, MVVM patterns.

Other Tools: Git, Nginx, AWS, LateX, BeautifulSoup, OpenGL, Tableau

Research & Experience

IEEE INFOCOM 2017 Paper: Taming Tail Latency of Erasure-coded, DFS *2016.01 ~ 2017.01*

In Proc. IEEE Infocom, May 2017 (**20.9%** acceptance rate)

- Developed mathematical model, Found upper bound for tail latency of distributed file system.
- Performed optimization, Established new algorithm and Built simulation, Reduced Latency from **250s to 15s** compared to previous algorithm under same setting. Proved better performance with different scale.

Research Assistant of CLAN(Cloud Computing Machine Learning And Networking) Lab

- Analyzed characteristics of SVC streaming stall time without cacheing; Developed mathematical model of stall time for multiple servers and multiple layers; Optimized Data Storage Systems for Video.

Project

E-commerce Online Bookstore Web App *2017.03 ~ 2017.05*

Full-Stack Web App, Java, Hibernate, MySQL, Bootstrap, Thymeleaf

- Designed an online bookstore E-commerce architecture, Included modules of user signup& login, user profile management, product management, shopping cart, order checkout& history, automatic email confirmation.
- Used Thymeleaf as template engine, bootstrap as html/css framework, MySQL as database, Spring Boot to develop backend, under MVC pattern.

Implementation of taming tail latency algorithm on Tahoe-LAFS *2016.08 ~ 2016.12*

Cloud Computing, DFS, Latency Optimization, Python

- Worked on Tahoe open source least authority filesystem with heterogeneous files on multiple servers, Applied optimized algorithm with probabilistic scheduling retrieve policy.
- Modified file-chunk access to lower tail latency by **70%** of retrieving files.

Personal Blog System *2016.07 ~ 2016.10*

Full-Stack Web Develop, Python, HTML/CSS, JS, MySQL

- Built a blog system with functions including user registration, blog management, visitor comment and etc.
- Used the underlying async web framework aiohttp, Applied jinja2 as template engine, Designed ORM and RESTful server APIs, Realized MVVM pattern with Vue.js.
- Deployed the application using NignX on AWS EC2 and use Route 53 redirect url to site.

Sensitivity of Regional Electricity Demand to Climate&Weather *2016.01 ~ 2016.08*

Machine Learning, Statistical Model, R

- Applied Supervised Learning Methods(GAM, MARS, RF, BART, PCA) for Model building. Analyzed model performance, Tuned Parameters, Performed model comparison, Improved R^2 from **84% to 93%**.

3D Interactive Computer Graphics Rendering *2015.08 ~ 2015.12*

Computer Graphics, C++, OpenGL

- Rendered complex real objects with motions& shade changing views.
- Built interactive 3D environment, Included objects with multiple texture and intersection, Constructed a simple game enabling viewer to stroll around and explore virtual environment.