ZHIHAO WANG

I am looking for Software Engineer positions that start in the January 2023 timeframe. zhihaowang.me | zhihaowang@cmu.edu | linkedin.com/in/zhihao-wang

EDUCATION

Carnegie Mellon University

Pittsburgh, Pennsylvania, United States Aug 2021 – Dec 2022 (expected)

Master of Software Engineering

 Selected courses: Introduction to Computer System, Statistics for Decision Making, Formal Methods, Agile Methods, Quality Assurance, Business & Marketing Strategy

China University of Mining and Technology, Beijing

Beijing, China

Bachelor of Science in Information and Computing Science

Sept 2013 – June 2017

• Selected courses: Advanced Algebra, Probability Theory, Discrete Mathematics, Data Structures and Algorithms, Operations Research, Mathematical Modeling, Database Theory, Object-oriented Programming and Applications

Peking University

Beijing, China

Bachelor of Economics

Sept 2014 – July 2017

- Ranked 33rd among 2000+ applicants in the program entrance exam and received The Second Prize Scholarship.
- Selected courses: Econometrics, Intermediate Microeconomics, Intermediate macroeconomics, Game Theory

PROFESSIONAL EXPERIENCE

App Annie Beijing, China

Senior Backend Software Engineer & Scrum Master

Feb 2018 – July 2021

Responsible for the technical design, development and maintenance of first-party data platforms that help customers manage apps' downloads, revenue, usage and advertising data.

• Scrum & Agile Project Management

- o Led a Scrum team of 6+ and facilitate the team's progress toward team goals.
- Coordinated with external teams including Product, Technical Operation, Support in different time zones, and host sprint planning meetings, daily Scrum meetings to manage project, and retrospectives to help the team locate issues.
- Skilled in using project management tools for tracking progress and quantitative analysis.

• Connection Workflow

- o Transformed Connection Workflow by migrating and refactoring connection workflows of 30+ platforms from monolithic app to microservices as technical designer and developer.
- O Significantly improved user experience by reducing time cost and improving success rate by 30%, as well as enhancing internal monitoring and troubleshooting tools.

• Connect Universal Dashboard

- Migrated the 9-year-old legacy product from a Diango monolithic app to microservices architecture (Flask).
- o Built data services on top of apps' sales, usage and advertising data stored in PostgreSQL & MongoDB.

Google Firebase Integration

- Designed the Firebase user authentication with Google 2-Step Verification, browser-based scraping tasks, ETL processes and backend service for data visualization and data delivery.
- o Implemented the workflow of user authentication and scraping tasks for CSV report download, making App Annie the first company to support Firebase integration in the industry at that time.

• App Store Source Analysis Report

- o Implemented scraping tasks for new source of data from Apple Store Connect and Google Play Store, and updated backend services to support new source of data.
- o Learned React from scratch and built a new visualization report within 4 weeks.

Best Engineering Excellence Award in App Annie Hackathon

- o Built a live demo of App Annie Distributed Configuration Management System within days.
- The app allows engineers to easily manage service configurations of various environments with user-friendly UI, which is helpful for project management, auditing and debugging, increasing efficiency, stability and visibility into changes that occur in an application.

• App Annie Ascend Hybrid UI

O Built *App Annie Ascend* user interface from scratch using React including dashboards, connection management, user management using React, during which I worked as a Full-Stack Software Engineer with multiple teams in Vancouver, San Francisco and Brazil.

Backend Software Engineer

- Dino English App & WeChat Platform
 - Built backend services for VIPKID Dino English App and its WeChat platform in Flask.
 - Established an asynchronous task system based on Celery from scratch for updating students' statistical data.

VIPKID Song App & VIPKID School

- Built backend services for VIPKID Song App and VIPKID School in Sprint Boot.
- Designed and developed core business logic of learning resource management and course booking management.
- Constructed micro-services architecture for backend service migration from a monolithic app.

VIPKID Beijing, China

Backend Software Engineer Intern

Aug 2016 - July 2017

- Supported VIPKID's core business, including parents booking courses, students downloading learning materials, etc., for iOS/Android applications based on Python, gRPC framework, Protocol Buffers.
- Built an internal ticket system to help send request for application change, database change, testing.

ADDITIONAL PROJECTS

Peking University Course Trading Market

Beijing, China

Founder & Developer

Dec 2016 - Feb 2018

- Developed a third-party information exchange platform to facilitate course swapping among undergraduate students at the National School of Development at Peking University.
- The emergence of this market made a splash and "daily site visits to the market surged to 4,000 and peaked at 6,000 when the class dropping and re-selection period began," Peking University Student Opens Course Trading Market reported.

CHARLS & Socio-economic Survey Data Analysis

Beijing, Shandong & Tianjin, China

Interviewer & Researcher

May 2015 - Dec 2015

- Collected microdata in the field via interviews for the China Health and Retirement Longitudinal Study to serve the needs of scientific research on the elderly.
- Analyzed collected data using Stata, and published a paper, Zhihao, Wang., and Xinheng, Wu. (2016, September 14). Factors affecting people over the age of 45 participating in the new rural pension. Global Market Information Guide, 2016(25), 15-16.

COURSE CERTIFICATES

Neural Networks and Deep Learning deeplearning.ai Structuring Machine Learning Projects deeplearning.ai Improving Deep Neural Networks deeplearning.ai Introduction to Recommender Systems University of Minnesota HTML, CSS and JavaScript **HKUST** Stanford University Machine Learning React: The Complete Guide (incl Hooks, React Router, Redux) Udemy Go: The Complete Developer's Guide Udemy

SKILLS

Programming Languages: Python, Javascript, Java, SQL

Data Storage: MySQL, PostgreSQL, MongoDB, Redis, Amazon S3, Snowflake

Frameworks: Flask, Django, React, Springboot DevOps: Docker, Sentry, Kibana, New Relic, Datadog Project Management: Jira, Trello, Asana, G Suite

Languages: Native proficiency in Mandarin and full professional proficiency in English