Zhongkai Liu
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Education:

Bachelor of Computer Science
University of Florida, College of Engineering | Gainesville, FL | Class of 2019 | GPA 3.86

- Relevant courses:
  Java and OOP, C++ Programming Fundamentals, Operating Systems, Software Engineering, Digital Logic, Data Structures & Algorithms, Database Systems, Network Fundamentals, Embedded Systems Design, Natural Language Processing, Distributed Systems

Experiences:

Software Engineering and DevOps Intern
Nielsen | Tampa, FL | Agilemetrics App & CICD pipeline | Summer 2018

- Maintained and extended features for Agilemetrics (a Golang app) that calls Jira API and used G-suite Data Studio to provide insights on engineering teams' Agile performance.
- Used Docker and Alpine to effectively containerize Agilemetrics (down to 20-MB image). Built a CI/CD pipeline for Agilemetrics using Jenkins and shell scripts for automation.
- Used Kubernetes manifests and kubectl commands for continuous deployment into different clusters.

Software Engineering Intern
The Home Depot | Atlanta, GA

Micro-services Monitoring Dashboard API | Summer 2017

- Built webservices that query from SQL-like database for logs and metrics data, then analyze and aggregate the data as useful stats for a web-based dashboard to display, along with a hierarchical relationship between the app and corresponding teams.

Payments Interceptor API | Summer 2016

- Built webservices that serve as middleware to encrypt pay card numbers in the payment processing requests for PCI compliance, which ensures card data encryption before entering THD network.

Undergraduate Teaching Assistant & Tutor
University of Florida | 2017 - 2018

Served as TA for courses: Software Engineering, Database Systems, Programming Fundamentals II

- Held labs to help students and assisted instructor on preparing and grading assignments/exams.
- Led discussions to help students learn MEAN stack and practice Agile development methodologies.
- Provided office hours for students with questions from their classes, homework, and projects.

Side Projects:

Airpick (http://www.uflcsa.org)

- A web app developed with MEAN stack and is currently used in production. The app serves as a platform for UF international students requesting for free airport pick-ups done by UF volunteers.
- As the CSA IT Director, I served as both developer and product manager leading a team of four.
- I designed and wrote the core functionalities of add/update/cancel pickup and lodging requests, and found very low-cost hosting for the app.

Eatwhere (https://eatwhereapp.herokuapp.com/)

- A web app rapidly developed with MEAN stack during a hackathon. Given a set of preferences, display the dishes from all surrounding restaurants that fit the best for the user's appetite.
- Given a list of ingredients, displays all the dishes contain/exclude those ingredients.

Smart Parking Simulator

- C++ program with GUI that simulates a parking management solution, where all free spots are tracked and assigned to new cars dynamically.
- Used multi-threading techniques and SDL library for the GUI components.

Game – TigerIsland

- Dave's Software Engineering project, a java program with GUI and game-AI against other players.
- contributed the most on the socket-networking and the message-exchange protocol with the server.

Technical Skills Summary:

proficient with **Java**, **C++**, querying/aggregation in **MySQL**, **MongoDB**, full-stack web dev with **MEAN stack**, and back-end with **Node.js**, **Springboot, Golang**; experienced in scripting with **Python** and **Linux Shell**, using **Jenkins** for CICD automation and **Docker**, **Kubernetes** to deploy/scale containerized apps; actively learning and developing web app with **Reactjs** and functional programming with **Elixir**