CHAOYI CHENG

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EDUCATION

University of Pennsylvania | Philadelphia, PA   Aug.2022 – Present
- *Master of Science in Engineering in **Computer and Information Science**   **GPA:** 3.83/4.0*

The Ohio State University | Columbus, OH   Aug.2018 – May.2022
- *Bachelor of Science in **Computer and Information Science**   **GPA:** 3.81/4.0*

Work Experience

FedEx Corporate Services | Pittsburgh, PA   Jun.2023 – Aug.2023
Software Engineering Internship, Pickup & Delivery Department

- Build a **Java Spring** application with **JMS** messaging, **JPA** repository and **Oracle** PDB
- Setup **Jenkins** CI/CD pipeline and deploy app to **PCF** cloud servers to facilitate load-balancing and failover
- Performance tune the app to a processing rate of **237 msg/sec**, over **150%** of the incoming message rate
- Application helps stakeholders better monitor and troubleshoot commit time information for Network 2.0

FedEx Corporate Services | Pittsburgh, PA   Jun.2022 – Aug.2022
Software Engineering Internship, Sort Systems Department

- Built an **Angular** Typescript application for internal package and facility management
- Prototyped UI components with Figma.io, implemented components with HTML, CSS, and Material UI elements
- Organized user events and unified app states with state management via **ngrx/store**
- Integrated frontend components with **Java Spring** backend via **Axios** client library

PROJECTS

Alibaba Cloud DTS Competition
- Designed and implemented a **C++** program to clean and migrate a large amount of data from local to cloud
- Developed **multi-threading** data cleaning and outputting logic
- Fine-grained performance tuning to optimize program performance
- Achieved final result of 5 minutes to read, process, and output 10G of raw data after utilizing Intel PMem

Mobile Social Network Application
- Developed an Android Social Network APP with **Java** in **Android Studio**
- Designed and implemented a sophisticated user interface with **MVVM** pattern
- Integrated popular internet-based utilities such as **Google Maps API** & **Cloud Firestore Database**
- Implemented application **non-functional requirement** – Battery Efficiency & Performance

Photo Sharing Social Media Application
- Built an Instagram-inspired app with **React** + Axios frontend, and **Express**.js + **Node**.js + **Mongodb**/S3 backend
- Implemented posts page lazy loading and utilized IntersectionObserver to facilitate infinte scrolling
- Implemented live new photo notifications via server polling, and 'Remember Me' function via **jwt** token sessions
- Improved information security by implementing account lockout policy and bcrypt password encryption

SKILLS

Programming Languages: Python, Java, JavaScript, C/C++
Databases: MySQL, Mongodb, Google Cloud Firestore, SQL & No SQL
Frameworks: Angular, React, Spring, Node.js, Express.js, Material UI, Scikit-Learn, Pandas
Methodology: Agile Scrum, Kanban, Test Driven Programming, CI/CD
Development Tools: Eclipse, Git, Jira, Jenkins, GNU debugger, VSCode, Google Colab

PUBLICATIONS

Chaoyi Cheng, Mingzhe Han, Nuo Xu, Spyros Blanas, Michael D. Bond, Yang Wang, *Developer's Responsibility or Database's Responsibility? Rethinking Concurrency Control in Databases, (CIDR Accepted)*