Cheng-Chuan(Zeno) Peng

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SKILLS

Programming Languages: Python3, C#, Node.js, Java, Go, Shell Script
Backend: .NET Core/MVC, Python Flask/Django, Express.js, Spring Boot
Databases: MySQL, MSSQL, MongoDB, Hbase, Hive, Snowflake
Tools and Platforms: Linux, Git, AWS, Azure, Docker, OpenShift, Hadoop, Splunk, NiFi, Airflow, Opentelemtry

WORK EXPERIENCE

Splunk   San Jose, CA
Software Engineer Intern   *May 2023 – Aug 2023*
- Enhanced the CNCF(Cloud Native Computing Foundation) **open source** project "opentelemetry-collector-contrib" (2.1k stars) within **OpenTelemetry** by refactoring its core library to improve large-scale data measurement efficiency by 20%
- Developed and maintained a receiver within **OpenTelemetry** using **Golang, Kubernetes, Kafka**
- Orchestrated 2 flaky tests to ensure high availability, improving **CI/CD pipelines** across diverse operating systems (MacOS, Windows) for better maintenance of distributed systems

Advantech   Taiwan
Software Engineer   *Jul 2021 – Apr 2022*
- Architected, implemented education system for 100+ users and update courses by **Azure Pipelines**, **Azure Blob**, **.NET MVC**
- Optimized **MSSQL** queries to accelerate data access by 40% for product retrieval, and reduced API response payloads by 20% using **.NET MVC**, enhancing overall system performance
- Designed robust APIs enabling user management of product items on the web platform, integrating functionalities such as image storage by **Azure Cosmos DB, Azure Blob, MSSQL, .NET Core**

Titansoft   Taiwan
Software Engineer   *Feb 2021 – May 2022*
- Facilitated 100+ users authorizations, integrated APIs, and connected games via **.NET Core**, **Redis**, **GRPC**, **GCP Spanner**, enhancing user experience and system interoperability
- Cataloged metrics via **GCP Pub/Sub,** enabling transaction data assimilation for tracking player points, improving gaming analytics
- Developed system testing workflow to validate API functionality and transaction records by NUnit for testing assurance

Micron Technology   Taiwan
Software Engineer   *Dec 2019 – Jan 2021*
Project: WebApp: Authentication System
- Authenticated 80 users' identities daily on a custom web application with **JWT tokens, APIs** by **Flask**, and bolstered **Gunicorn**
- Deployed **Docker** and **Openshift** for monitoring, resource allocation, and scheduled task management
- Refactored 5 yield APIs, ensuring interoperability and integration across platforms, leading to more efficient data retrieval

Project: Fab Yield System
- Deployed 17-tables (5GB/day) **ETL** pipelines with **NiFi**, and **MySQL** to store industry-specific data on **Hadoop, Hive, HBase**
- Reduced query time by 60% by joining and aggregating different views on diverse **Hive** views
- Monitored 12 data and developed dashboards to visualize data, ensuring data quality and monitoring website health using **Splunk**
- Collaborated with global team to troubleshoot and resolve 15+ data pipeline issues across **MySQL**, **MSSQL**, **Snowflake** platforms
- Integrated **Avro** to push structured and semi-structured data into **Snowflake**, ensuring data integrity and consistency
- Employed **Airflow** to automate triggering of APIs, transmission data by **Splunk** to track web application dynamics

Delta Electronics   Taiwan
Software Engineer Intern   *Jul 2017 – Aug 2017*
- Built knowledge extraction system by integrating Java Packages and **NLP APIs** through **Flask** and **Jpype**
- Researched and built a Chinese Error correction system through deep learning models, improving text processing accuracy

EDUCATION

Carnegie Mellon University   Mountain View, CA
Master of Science in Software Engineering   *Aug 2022 – Dec 2023*
- Courses: Foundations Software Engineering, Foundations Computer Systems, Software Design and Architecture, Software Testing

National Tsing Hua University   Taiwan
Master of Science in Information Systems and Applications GPA 4.0/4.3   *Jul 2016 – Jun 2019*
- Courses: Operating Systems, Game Theory, Cloud Programming, Advanced Databases, Natural Language Processing, Data Mining, Machine Learning, Deep Learning, Multimedia Music Design

Academic Projects

Course Meeting Room/ Software Architecture / Carnegie Mellon University   *2022*
- Setup **Docker** to build microservice infrastructures with **API gateways**, using **Node.js** for chain of responsibly to handle API requests
- Integrated user identity validation features using **Swagger** for **RESTful API**, with **Flask** and **MongoDB** for backend support
- Implemented a real-time chat interface using **JavaScript**, enabling user interaction within a chat room environment

Trash Monitoring / Cloud Programming / National Tsing Hua University   *Feb 2017 – Jun 2017*
- Conceptualized and launched a website for monitoring amount of waste by **Node.js, AWS Lambda/SQS/RDS/S3, Google Map API**
- Utilized **AWS Cognito** for secure administrator authentication, ensuring a secure environment for waste metrics analysis