Cheng-Chuan (Zeno) Peng

Mountain View, CA | 626.879.8057 | pengc01245@gmail.com | linkedin.com/in/cheng-chuan-peng | Portfolio

Software Engineer with experience in backend, data development and a proven track record of delivering high-quality software solutions. Successful in designing, developing, and deploying scalable data, backend solutions. Knowledgeable in multiple programming languages with the ability to test functionalities for consistent data integrity. Highly skilled in developing and maintaining ETL pipeline to build databases and improve Application Programming Interfaces (APIs).

Core Competencies
- Database Building
- Programming
- Data Design Solutions
- Backend & Software Engineering
- ETL Pipeline Creation & Management

EDUCATION

Master of Science in Software Engineering, Carnegie Mellon University | 2022 to 2023
Relevant Courses: *Foundations Software Engineering, Foundations Computer Systems, Software Design and Architecture, Software Testing*

Master of Science in Information Systems and Applications, National Tsing Hua University - Taiwan | 2017 to 2019
Relevant Courses: *Operating Systems, Cloud Programming, Advanced Databases, Natural Language Processing, Data Mining, Machine Learning, Deep Learning*

Academic Projects
Software Architecture Course, Carnegie Mellon University | 2022
- Built microservice infrastructures in **Docker** with **API gateways** using **Node.js** for designing chain of responsibility 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

Cloud Programming Course, National Tsing Hua University | 2017
- Designed and launched a website for monitoring amount of waste created by **Node.js, AWS Lambda/SQS/RDS/S3**, and **Google Map API**
- Utilized **AWS Cognito** for secure administrator authentication, ensuring a secure environment for waste metric analysis

PROFESSIONAL EXPERIENCE

Splunk | San Jose, CA
Software Engineer Intern | May 2023 to August 2023
- Enhanced the **CNCF** (Cloud Native Computing Foundation) **open source** project "opentelemetry-collector-contrib" (2.1k stars) within OpenTelemetry by refactoring its core library, resulting in 20% improvement in large scale data measurement efficiency
- Developed and maintained receiver in **OpenTelemetry** with **Golang**, **Kubernetes**, and **Kafka** to enhance data capacity
- Orchestrated two flaky tests to ensure high availability, improving **CI/CD pipelines** across Mac and Windows OS for better maintenance of distributed systems

Aug 2022 to Dec 2023: Full time student working towards Master's degree

Advantech | Taiwan
Software Engineer | July 2021 to April 2022
- Architected and implemented content delivery system for 100+ users and updated courses using **Azure Pipelines**, **Azure Blob**, and **.NET MVC**
- Optimized **MSSQL** queries to accelerate data access by 40% for product retrieval using **LINQ**, and reduced API response payloads by 20% using **.NET MVC**, thus enhancing overall system performance

- Designed robust APIs enabling user management of product items on web platform, integrating functionalities such as image storage by **Azure Cosmos DB, Azure Blob, MSSQL,** and **.NET Core**

Titansoft | Taiwan
Software Engineer | February 2021 to May 2021

- Tracked 100+ user authorizations, integrated APIs to connected games via **.NET Core, Redis, GRPC**, and **GCP Spanner**, thus enhancing user experience and system interoperability
- Cataloged metrics via **GCP Pub/Sub**, enabling transaction data assimilation to track player points, thus improving gaming analytics
- Developed system testing workflow to validate API functionality and transaction records by NUnit to ensure quality test results

Micron Technology | Taiwan
Software Engineer | December 2019 to January 2021

- Key player in development and maintenance of two business systems

  WebApp: Authentication System

  - Authenticated 80 user identities daily through custom web application with **JWT tokens**, **APIs** by **Flask**, and bolstered **Gunicorn**
  - Applied **Docker** and **Openshift** tools to monitor performance, allocate resources, and schedule tasks
  - Refactored five yield APIs, ensuring interoperability and integration across platforms, leading to increased efficiencies in data retrieval

  Fab Yield System

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

Delta Electronics | Taiwan
Software Engineer Intern | July 2017 to August 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, which improved text processing accuracy by 20%

TECHNICAL SKILLS

Programming Languages: Python, C#, Node.js, Java, Go, Bash/Shell scripting
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, OpenTelemetry, API, RESTful

LANGUAGES

Chinese: Native Proficiency