

Cheng-Chuan (Zeno) Peng

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TECHNICAL SKILLS

Programming and Backend Framework: Python, C#, Node.js, Java, Go, Bash, .NET Core/MVC, Flask/Django, Express.js, Spring Boot

Tools: Prometheus, K8S, AWS, Docker, Hadoop, Splunk, Airflow, OpenTelemetry, RESTfulAPI, Grpc, CI/CD, Grafana, MySQL, MSSQL, HBase, Hive

PROFESSIONAL EXPERIENCE

Splunk | Denver, CO

Software Engineer Full-time | March 2024 – Present

- Scaled **5+ distributed systems** and designed cloud infrastructure framework to process and expose critical metrics for monitoring health of all internal systems, customer-facing applications, and integrations with Splunk over **700+** developers.
- Developed notifier web apps using **Golang, goroutines, channels, and payload compression** to integrate **Prometheus Alertmanager** with Slack notifications, enabling middleware triggers to shut down services automatically for cross-functional teams, reducing downtime and manual intervention by **60** seconds.
- Deployed pipelines to process **200+ AWS CloudWatch streaming metrics** using **batch API calls** to enhance performance and caching for data ingestion into **AWS S3**, then integrated with **Splunk Observability (SignalFx)** using **Prometheus, Jsonnet, Kubernetes, CI/CD, and Terraform** for **20+** developers to analyze, monitor, and optimize AWS instances and resources.
- Developed an **Atlassian Status Page** for real-time health monitoring of **30+** services, integrating Prometheus, SignalFx, and **Grafana** for SLO tracking and debugging.

Splunk | San Jose, CA

Software Engineer Intern | May 2023 to August 2023

- Refactored an **OpenTelemetry** receiver in **Golang** by method extraction and polymorphism to enhance readability and maintainability, replacing a library, achieving **20%** increase in data streaming speeds with OTLP (OpenTelemetry Protocol).
- Integrated and configured **OpenTelemetry, Kubernetes** and **Apache Kafka**, including **topics, subscribers, and workers** to process metric streams, performance testing to support internal application developers in monitoring metrics.

Advantech | Taiwan

Software Engineer Full-time | July 2021 to April 2022

- Developed a **Content Management System** by **.NET Core** in a **three-tier architecture, Azure Blob Storage** for efficient storage and **pagination** to enhance data retrieval speed, while implementing **Memento Pattern** for article versioning and **Singleton Pattern** to optimize connection pooling, enabling **100+** users to seamlessly modify e-commerce product content.
- Enhanced product retrieval time by **30%** in e-commerce platform by optimizing **MSSQL** with **LINQ**, indexing, caching, **.NET MVC**, while applying **Adapter Pattern** to integrate legacy components, improving maintainability and reusability.
- Developed APIs and designed a database schema for a product learning materials platform using **Azure Cosmos DB** with multi-region replication for availability and implemented **Azure Blob Storage** for image storage.

Titansoft | Taiwan

Software Engineer Full-time | February 2021 to May 2021

- Built a microservices architecture by **gRPC, C#, and .NET Core** to communicate within game services and external users via **RESTful APIs, Google Cloud Spanner, GCP Pub/Sub** to process transactional data events.
- Optimized game performance and scalability by **Redis** caching to reduce database load and store frequent data such as profiles, session states, rankings using **Redis Sorted Sets**, resulting in **20%** in response times for play experience.

Micron Technology | Taiwan

Software Engineer Full-time | December 2019 to January 2021

- Designed middleware by **Flask, RESTful, Swagger, JWT token** for authentication, deploying **Docker** ensuring reliable web services health checks for supporting **80+** users token refreshes.
- Designed a **5GB/day (17 tables)** ETL pipeline using **NiFi, MySQL, and Hadoop**, and Optimized **Hive** and **HBase** (Avro) queries through partitioning, indexing, reducing query time by **60%**, thus supporting data analysts faster decision-making.
- Utilized **Airflow** with FileTransferOperators to ingest **12** datasets into Splunk for real-time analytics and monitoring.

Education

Master of Science in Software Engineering, Carnegie Mellon University | 2022 Aug – 2023 Dec

Master of Science in Information Systems and Applications, National Tsing Hua University | 2016 Sep – 2019 Jul

Bachelor of Art in Journalism, National Chengchi University | 2013 Sep – 2016 Jun