

# Yingfan (Eric) Chen

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## Education

### University of Washington

Seattle, WA

B.S. in Computer Science, GPA: 3.91/4.00

September 2019 – December 2022

**Related Coursework:** Distributed Systems, Computer Networks, Artificial Intelligence, Database Internals, Advanced Algorithms, Systems Programming, Machine Learning, Data Structures and Parallelism, Software Design.

## Work Experience

### Palo Alto Networks

Santa Clara, CA

Big Data Software Engineer Intern - Big Data Team

June 2022 - Current

- **Data Management:** Built distributed in-memory applications using Spark (PySpark and Spark Scala API) and used YARN as resource manager to increase analytics efficiency on huge data sets by 40%. Conducted data profiling and data visualization to help make business decisions.
- **Data Ingestion:** Worked on using PySpark to distribute data processing on large streaming datasets, improving the speed of data ingestion from various data sources(Teradata, mainframes, CSV, RDBMS) into HDFS by 50%.

### Costco

Issaquah, WA

Software Engineer Intern - Enterprise Service Development Team

Jan 2022 - April 2022

- **RESTful Microservices Development:** Designed and developed RESTful Microservices using SpringBoot framework, integrated with Junit/SOAtest for service functionality. Implemented Docker container to create service image on Quay, and dynamically provision slaves to Jenkins CI/CD pipelines.
- **Service Deployment:** Created projects/configMap/secrets on Openshift for deployment on Dev/Test/Prod environments. Troubleshoot pods through ssh and logs. Worked on developing ADO pipeline for automatic deployment and configuration of RHEL servers for test and prod environments.

### Tesla

Shanghai, China

Software Engineer Intern - Big Data Team

July 2021 - Sept 2021

- **Data Visualization:** Developed real-time production line dashboards using Dash & Echarts framework in Python that triggers synchronous data fetching from databases(Presto + Vertica) for high-customized front-end display. Reduced the onsite feedback cycle from ten minutes to almost real-time.
- **Data Warehousing:** Built and deployed high-availability ClickHouse cluster using Zookeeper on Linux servers. Conducted Kafka injection into ClickHouse for stream-data processing and multi-platform data migration. Implemented the distributed database management system demo as the proof of concept using Docker (github/yingfc/clickhouse\_cluster).
- **Dev Environment:** Combined python dependencies of dashboard projects into an all-in-one customized artifact to standardize dashboard development for higher efficiency, and organized ClickHouse cluster environment properties on Docker and Kubernetes.

### Momenta.ai

Suzhou, China

Software Engineer Intern - High-Definition Map Data Service Team

July 2020 - Oct 2020

- **Map Data compilation:** Developed a High-Definition map data pipeline with functional programming by Scala, processing map data from raw reads to organized data via topology reorganization and semantic computation.
- **Compiler optimization:** Implemented topological filtering method to cluster map data via features, enabled visual debugging and reduced the dependency on upstream data accuracy, shortened compilation time of 200km of high-way raw data from 40 minutes to 20 minutes.
- **DevOps Workflow Optimization:** Created and maintained the Azure DevOps CI/CD pipeline for feature development, and set up the Staging-Prod pipeline triggers to enable auto-tagging for release and auto-deployment on Kubernetes to improve project deployment efficiency by 40%.

## Skills

- **Programming Languages:** Proficient in Java, Scala, Python, SQL, JavaScript, HTML/CSS; Familiar with C/C++; Previously used R, Matlab.
- **Software & Tools:** JetBrains (IntelliJ, PyCharm, DataGrip), Atlassian(Bitbucket, Jira, Confluence), Git, Azure DevOps, Docker, Kubernetes/Openshift, AWS, GCP, Gradle, Maven, ClickHouse, Zookeeper.

## Accomplishments

- **Tesla First Hackathon - Best Innovation Prize**

August 2021