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, Artificial Intelligence, Advanced Algorithms, Databases, Systems Programming, Hardware/Software Interface, Machine Learning, Data Structures and Parallelism, Software Design and Implementation, Web Programming, System and Software Tools.

Work Experience

Tesla   **Shanghai, China**
Data Engineer Intern - Big Data/BI 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), and instant 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 AWS EC2.

UW Sensors, Energy, and Automation Laboratory (SEAL)   **Seattle, WA**
Software Developer   *March 2021 - May 2021*

- Code environment setup: Set up Flutter development environment as project skeleton for three teams. Offered tutorials for Flutter development, including basic syntax and app interactivity.
- Project DevOps setup: Built three DevOps CI/CD pipelines for project development, standardized auto building and testing to improve development efficiency.

Momenta.ai   **Suzhou, China**
Software Engineer Intern - High-Definition Map Data Service Team   *June 2020 - Oct 2020*

- HD Map Data compiler: 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.
- Map Data compilation: Implemented topological filtering method to cluster map data via features, enabled visual debugging and reduced the dependency on upstream data accuracy, reduced 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%.

Projects

Campus Path Finding Tool ↗   **Jan 2021 – March 2021**

- Web-based application on UW campus path planning/finding tool used React and SparkJava framework to design GUI and implemented the MVC design pattern.

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), Microsoft (Azure DevOps, Visual Studio), Atlassian(Bitbucket, Jira, Confluence), Git, Docker, Gradle, Maven, ClickHouse, Zookeeper.

Accomplishments

- ***Tesla First Hackathon*** *- Best Innovation Prize*   **August 2021**
- ***University of Washington Dean's List*** *- Annual Dean's List*   **2020, 2021**
- ***Euclid Mathematics Contest at University of Waterloo*** *- World Top 10%*   **May 2019**