

Yingfan 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, Discrete Math, Java I, Java II, 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 by 50%.
- **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.
- **Dev Environment:** Organized analytical environment based on Docker and AWS, and standardized project python dependencies.

UW Sensors, Energy, and Automation Laboratory (SEAL)

Seattle, WA

Software Developer

March 2021 - May 2021

- **Code environment setup:** Set up Flutter development environment for project skeleton for different teams. Offered tutorials for Flutter development, including basic syntax and app interactivity.
- **Project DevOps setup:** Built DevOps CI/CD pipelines for project development and deployment, shortened feedback loop cycle period by 60%.

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, 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, improved compilation time by 30%.
- **DevOps Workflow Optimization:** Created and maintained the Azure DevOps CI/CD pipeline for feature development, and setup the Staging-Production pipeline triggers to enable 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.

ClickHouse Cluster 📄

July 2021

- Distributed database management system demo implemented using Docker and Zookeeper that enables high-availability and high-efficiency.

Skills

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

Accomplishments

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