Rui Zhou

GitHub | in LinkedIn | ✈ ruzhou@student.ethz.ch | ☎ +41 78 249 50 69

EDUCATION

ETH Zurich, Switzerland — Sept 2019 - Current
Master of Science in Electrical Engineering and Information Technology — GPA: 5.25/6.0

University of Zurich, Switzerland — Sept 2021 - Current
Mobility/Exchange Student in Software Systems

Beijing University of Posts and Telecommunications, China — Sept 2015 - June 2019
Bachelor of Engineering in Telecommunications Engineering with Management — Top 1 out of 294, GPA: 96/100

Queen Mary University of London, United Kindom — Sept 2015 - June 2019
Joint Programme with BUPT — First Class Honor Degree

EXPERIENCE

G-20 Strategies AG - Tech Team — December 2021 - May 2022
DevOps Developer, Internship — Zurich, Switzerland

- Use Elasticsearch/Filebeat/Logstash to collect trading logs and system metrics for analysis;
- Manage Kubernetes Cluster to automatically update the image. (CI/CD)
- Responsible for Nginx Site Reliability;

IBM China Development Lab - CIO Team — Nov 2018 - April 2019
Big Data Engineer, Internship — Beijing, China

- Participate in designing and developing the data ETL jobs using streaming in Big Data;
- Use Python to write scripts to clean up the original order data in batches, handle character exceptions and encapsulate them into a custom format;
- Making a Java tool for consuming the data in Kafka and writing it to HDFS;
- Analyze offline data through Spark SQL and use Apache-Flink to process real-time data streams;

PROJECTS

An RPC DRAM Implementation for Energy-Efficient ASICs — Jul 2020 - Nov 2020
Prof. Luca Benini, ETH Integrated Systems Laboratory

- Get to know the protocol by reading the Etron Technology RPC DRAM datasheet;
- Draft an architecture for our RPC DRAM controller;
- Verify the implementation in simulation;
- Synthesize the controller and the surrounding system; create area and timing reports;
- Implement the system on an ASIC and tape it out(http://asic.ethz.ch/2021/Dogeram.html)

Intelligent Control on Traffic Nodes, Tsinghua University — Feb 2017 - Jan 2018
Future Transportation Lab, Tsinghua University

- Constructed the simulation environment using SUMO and visualized the road condition;
- Programmed to compute the jam condition score on each node using Python(numpy, scipy, pandas);
- Conceived to build a network for self-reinforcement learning and optimize the road condition;
- Summarize the work and publish it in the journal

PUBLICATIONS

Cloud Computing Security and Privacy	International Conference on Big Data and Computing	2018
Network-wide Traffic Signal Control based on Discovery of Critical Nodes and Deep Reinforcement Learning	Journal of Intelligent Transportation Systems	2020

TECHNICAL SKILLS

Software Programming: Java, C++, Python, C, C#, Go   **Web Technologies:** HTML, CSS, JavaScript
Hardware Programming: SystemVerilog, Innovus   **Miscellaneous:** PostgreSQL, Azure DevOps, Git, Docker, Kubernetes, ELK

RELEVANT COURSEWORK

Computer Science: Machine Learning, Data Structures and Algorithms, Databases, Distributed Systems, Computer Networks, Computer Architecture, VLSI Design
Mathematics: Discrete Maths, Distributed Computing

POSITIONS OF RESPONSIBILITY

Secretary General, Association of Chinese Students and Scholars in Zurich: — 2020 - 2021
Responsible for personnel statistics and information collection for various activities