

XIAOYAN HUA

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EDUCATION

Tufts University, Medford, MA

Sep 2021 - May 2023

Master of Science in Software System Development

Core courses: Software Engineering, Cyber Security, Cloud Computing

North China Electric Power University, China

Sep 2011 - Jun 2015

Bachelor of Engineering in Electrical Engineering and Automation

Award: National Scholarship

WORK EXPERIENCE

Arista Network, Nashua, NH

May 2022 - Aug 2022

Software Engineer (intern)

- Worked with platform-independent software team in SyncE (Synchronous Ethernet), focused on extended quality level to support new types of SyncE clocks and some other functionality
- Built extended parser in C++ to validate and parse all ESMC packet handling extended quality level TLV
- Implemented all extended attributes from receiving and transmit pipeline displayed in CLI show commands
- Enabled packet generator in SyncE system to generate and populate extended attributes correctly

State Grid Jiangsu Electric Power Company, China

Aug 2015 - Jun 2021

Electrical Engineer (full-time)

- Participated in the development of an online abnormality detection application on renewable energy equipment to reduce customer-side carbon emissions
- Detected 121 abnormal devices with 97% accuracy from online data including power flow and line loss rate

PROJECTS

Simple Bank (Golang)

May 2022 - Jul 2022

- Established a backend web service of a mimic bank for customers to create, manage accounts and transfer money
- Designed the bank database schema of users and transfers in **Postgres** and handled deadlock in transaction
- Created RESTful APIs through **Gin** for loading app configs, handling errors, authenticating users with web token
- Built the minimal image with **Docker** and deploy it to a production Kubernetes cluster on **AWS**

Developer Connector (JavaScript)

Dec 2021 - Feb 2022

- Developed a small full stack social network app that includes authentication, profiles and forum posts
- Built API routers through **Node.js** and **Express** in the backend connecting to database in MongoDB
- Introduced **JWT** web token to securely implement authentication for registered users
- Used **React** Hooks to call features and applied **Redux** for app state management in the frontend

Java on Rails (Java)

Sep 2021 - Oct 2021

- Implemented a simple web server that uses a **model-view-controller** architecture in Java
- Used Java I/O and reflection to establish an interior database and provide primitive database functionality
- Created controllers to handle multiple requests and support a basic CRUD interface
- Wrote web server functions listening and routing received requests, sending the result back

TECHNICAL SKILLS

Programming Language:

Java, C/C++, Python, JavaScript, Go, CSS, HTML, SQL, Matlab, Swift

Framework & Developer Tools:

Node.js, Express, React, Redux, Spring Boot, Spring MVC, Git, Docker
MySQL, MongoDB, AWS, Maven, Gin, Postman, Wireshark