

Hongyu Li

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Education

University of North Carolina at Chapel Hill

May 2021

B.S. in Computer Science

B.S. in Environmental Sciences, Concentration in Energy Management

Minor in Entrepreneurship

GPA: 3.74

Skills

Technical Languages: Python, Java, Kotlin, C#, JavaScript, Html/CSS, SQL, C, C++, Clojure, MATLAB

Technologies: Git, Pandas, Pytorch, Flask, Node, Express, React, MongoDB, REST, AWS, Azure

Foreign Language: Chinese

Work Experience

Software Engineer | Credit Suisse

July 2021-

- Support a distributed pre-trading system through developing new features, debugging, testing, documentation, and working with stakeholders, using **C#, .Net, Angular, Visual Studio**
- Build microservices for the system, including a regulatory check app using **Kotlin, Java, Spring**
- Maintain version control and CI/CD pipeline through **Git** and **Gitlab**; utilize **Jira** in **Agile** workflow; implemented **Junit** local tests; followed OOP and functional programming in MVC pattern
- Construct an upskilling gamification platform for employees; design the content and architecture of the platform; build the backend services and databases using **Python, Flask, MongoDB, and React**
- Built scripts to manage and automate data process, including decommission and updating, of over 80,000 entries, with **Python, Pandas** and **Shell** in **Linux and Windows** environment

Software Engineer Intern | Jitsuin, Inc

January 2021 – May 2021

- Created new use cases and **APIs** of the application, improved **Python SDK** to facilitate the usage; hosted SDKs and APIs in **Azure** and **Github**
- Improved the quality of code using tools including **Docker, Pypi, Pylint, Pep8**, and docstrings

Research Assistant | Department of Computer Science

May 2020 – May 2021

- Created an **NLP** program detecting sarcasm in languages and improved the accuracy by 10% through **machine learning** model developing cycle using **Python, Pytorch** and NLP models
- Built a question answering trivia web application to collect question-answer datasets using **Node.js, Express, MongoDB, HTML/CSS**

Projects

Herbarium Map | Software Engineering Lab

August 2020 – November 2020

- Worked in a team of three, with the client and mentors to develop a web-based interactive map to display access records of plant specimens at UNC Herbarium using **JavaScript** web framework
- Developed backend API endpoints using **Node.js, Express.js** and **MongoDB**
- Built the interactive user interface using **React.js** and **Mapbox** to display access information
- Secured funding for UNC Herbarium by showing the value of the plant collections through the map

Idiot | Software Architecture

January 2020 – May 2020

- Developed a simplified version of Git, “a stupid content tracker” called *Idiot*
- Implemented basic Git commands using **Clojure**: creating objects, storing them in branches, and displaying contents in a web server
- Practiced software design techniques including debugging, refactoring and testing

UNC EUI Map | ENEC Capstone

August 2019 – December 2019

- Researched and set target EUIs (Energy Usage Intensity) for campus buildings
- Developed a website for UNC EUI, embedded with Online ArcGIS Data, using **HTML/CSS, JavaScript, SQL**, to present current and target campus EUIs

Building Competition | UNC Facilities Services

August 2019 – December 2019

- Planned, organized, and managed an energy-saving competition between two buildings
- Constructed a website for campus building competitions using **HTML/CSS/JS, Node.JS, Express, Restful**, and **MongoDB** to present data, methodologies and strategies
- Analyzed energy data and other factors of the two buildings, finding a 5% reduction in energy usage