

Yuxin (Nelly) Meng

(267) 278 3985 | yuxmeng@seas.upenn.edu | [linkedin.com/in/yuxin-nelly-meng/](https://www.linkedin.com/in/yuxin-nelly-meng/) | yux-m.github.io/personal-site/

EDUCATION

University of Pennsylvania – Philadelphia, PA

Master of Computer and Information Technology

Expected: May 2024

Southeast University – Nanjing, China

Bachelor of Engineering

Aug 2018 – Jun 2022

TECHNICAL SKILLS

Programming Language

Python, Java, JavaScript, EJS, SQL, C, Bash, Motoko

Web Development

HTML/CSS, Bootstrap, React, Node, Express, jQuery, Passport, Spring

Database/Cloud/Platform

MongoDB, AWS, Heroku(PaaS), Jenkins(DevOps), Git(Version Control)

Machine Learning/Big Data

MLlib, SciKitLearn, PyTorch, MXNet; Spark(Distributed Computing), pandas

EXPERIENCE

Software Technologies Research Associate | Developed **Productivity Tools**

Jul 2020 – Aug 2020

IT Center, Zhuhai Institute of Urban Planning & Design

Zhuhai, China

- Achieved 200% efficiency improvement: realized automatic simulation execution in Abaqus through script files in Python, decreasing average modeling time from over 30 minutes to 10 minutes.

Research Assistant | Deployed **Natural Language Processing**

Feb 2020 – Jun 2020

Southeast University

Nanjing, China

- Extracted data by web scraping with Requests and BeautifulSoup4 for data mining with pandas.
- Conducted NLP sentiment analysis, visualized results with numpy and Seaborn in Python.

Research Assistant | Conducted **Data Analysis**

Aug 2019 – Dec 2019

Southeast University & Nanjing Real Estate Bureau

Nanjing, China

- Developed data integration tools with pandas and SQL in Python, executed data modeling, validation, and testing.

PROJECTS

Bitcoin Price Prediction with Social Media Analysis | **ML & Distributed Computing**

Oct 2022 – Dec 2022

- Executed distributed computing with Apache Spark on AWS Elastic MapReduce.
- Operated NLP (sentiment analysis with NLTK, natural language inference with SNLI) on tweets.
- Launched K-Means Cluster analysis and Random Forest classification with SciKit-Learn.
- Conducted Time Series Analysis on prices with PyTorch and developed regression models.

WildSpot | **Event-Driven Dynamic Web Application** (Full Stack)

Aug 2022 – Sep 2022

- Produced templated frontend views using EJS with Express.js and organized routes with Express middleware.
- Built REST APIs for web responses and database manipulation upon user requests including CRUD operations.
- Created session configuration with Express, set up authentication and authorization middleware with Passport.js.
- Developed cloud database with MongoDB and deployed the application with Heroku.

DeFi | **Decentralized Finance Application**

Mar 2022 – May 2022

- Developed the frontend using React.js and developed the backend with Motoko.
- Deployed the DApp to ICP(Dfinity) Blockchain for Hosting.

PalaceAdvent | **Game** (OOP)

Oct 2021 – Dec 2022

- Developed a graphic pixel game in Java independently, with self-designed data structures.
- Built a game platform with interface, random world generator, data encoding and file I/O system.

Gitlet | **Version Control System** (Data Structures)

Oct 2021 – Nov 2021

- Implemented a version-control system in Java with TreeMaps, applying cryptographic hash function SHA-1.

San Francisco Traffic Analysis: Collision Pattern Mapping & Case Studies

Jun 2021 – Aug 2021

- Preprocessed raw data, conducted EDA and identified principal patterns related to rush hours and speed limits.
- Created interactive visualization of results with spatial data, decoding and transforming geometric data in GIS.

SELECTED COURSES

Data Structures	Big Data Analytics (with Machine Learning)
Algorithms I&II	Inheritance and Data Structures in Java
Introduction to Computer Systems	Introduction to Java and Object-Oriented Programming
Introduction to Software Development	C Programming

INSTRUCTION EXPERIENCE

Coding Club Instructor Python	Oct 2022 – Dec 2022
Fife-Penn CS Academy	Philadelphia, PA
Teaching Assistant C Programming	Aug 2019 – Dec 2019
Southeast University	Nanjing, China

LEADERSHIP & TEAMWORK

Minister of Publicity Department	Feb 2019 – May 2020
Zhishan Volunteer Organization of Southeast University	Nanjing, China
<ul style="list-style-type: none">Organized termly recruitments, held orientations and trainings.Built network by making and maintaining connections with other organizations and local museums.Managed the social media account for publicity, designed uniforms and posters.	
Administrative Secretary of Public Relations Department	Sep 2018 – May 2019
Student Union of Civil Engineering School of Southeast University	Nanjing, China
<ul style="list-style-type: none">Maintained internal and external relationships.Planned and held activities including parties, night market fairs and alumni & freshman meetings.Raised funds and in-kind sponsorships by connecting with local organizations and shops.	

VOLUNTEER

Docent	Feb 2019 – May 2020
History Museum of Southeast University	Nanjing, China
<ul style="list-style-type: none">Volunteered as a docent and attended to guests from companies and other universities in English and Mandarin.	
Docent	Sep 2018 – May 2019
Nanjing Jiangning Museum	Nanjing, China
<ul style="list-style-type: none">Volunteered as a docent and helped hold open days for local pupils.	