HuiYu (Nollie) Chen

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Education

University of Pennsylvania

08/2023 - 05/2025

MSc, Computer and Information Technology

Philadelphia, PA

• Coursework: Software Development (Java), Computer Systems (C), Programming for the Web (JavaScript, React.js), Data Structures and Software Design (Java), Algorithms & Computation, Database & Information Systems (SQL, NoSQL), Machine Learning, Natural Language Processing

Skills

- Programming Languages: C/C++, Java, JavaScript, Python, Swift
- Data Management: SQL, NoSQL, Tableau, PyTorch, MongoDB, Neo4j, DynamoDB
- Web Development: HTML/CSS, React.js, TypeScript, Express.js, Node.js, Vue.js, Bootstrap, Figma
- Technology: AWS, Cypress, Docker, Git, Jira, Kubernetes, PowerShell, Splunk, Wireshark
- Leadership: President at UPenn MCIT 59X, Vice President of UPenn TSA (Taiwanese Student Association)

Work Experience

Amazon AWS 06/2024 - 08/2024

Software Development Engineer Intern

- Implemented a full-stack CI/CD solution using serverless technologies such as Lambda, EventBridge, and DynamoDB, enabling 80k builders across Amazon to monitor risks and minimize downtime effectively
- Enhanced the subscription management mechanism by allowing builders to create, edit, update, and delete their subscriptions, configuring customization options, and incorporating guardrails for reliability with a generic design to support various subscription entities beyond risks
- Defined and deploying cloud infrastructure as code with AWS CDK to generate AWS CloudFormation templates, leveraging Java and TypeScript to ensure maintainability and scalability on AWS

The Wharton School - Wharton Research Data Services (WRDS)

11/2023 - Present

Software Engineer Intern (Backend Team)

- Supporting the backend for the Company Competition Graph using the Python Flask framework, contributing to the enhancement of the service's functionality and performance
- Enhancing the visual presentation of the Company Graph component by refactoring it to leverage the Vue.js framework to construct a knowledge graph with more than 700 nodes and 1,200 edges
- Implementing efficient loading, displaying sample graphs, and refactoring view-switching option for optimal experience

IBF Securities 01/2021 - 05/2023

Data Analyst

- Achieved 60% time savings by implementing Python, TSQL, Oracle SQL, Tableau, and Splunk for data cleaning, processing, and modeling; created 30+ impactful dashboards, including default prevention and enhancing marketing effectiveness
- Introduced Splunk in a Linux environment, optimizing IT management and cybersecurity by creating over 100 metrics and identifying patterns in unstructured data; proactively detected and thwarted a hacking attempt
- Developed data pipelines and a robust OLAP architecture in a relational database, enabling teams to leverage predictive insights for data-driven decision-making through efficient data storage, retrieval, and analysis

Selective Projects

JourneyMate: Database Full-Stack Application - JavaScript / React.js / Python / MySQL / AWS (RDS, EC2) 05/2024

- Engineered data processing pipelines in Python, handling over 500,000 data points from Yelp and Airbnb API to generate dynamic, tailored travel suggestions
- Designed a BCNF-compliant MySQL database and optimized SQL queries for performance, significantly reducing data retrieval times and enhancing user experience

Instagram Full-Stack Clone - JavaScript / React.js / Express.js / MongoDB / RESTfulAPI / Testing / Git

- Designed and implemented a wide range of full-stack features, including user registration, authentication, user profile management, dynamic post creation, media uploads, real-time activity feed, and user follow/unfollow capabilities while maintaining 80% test coverage with Jest, Supertest, and Cypress
- Designed resilient RESTful APIs with Express is and MongoDB, integrating real-time updates and session management