

Yuheng Hou

Baltimore, MD 21210

✉ yhou27@jh.edu

☎ 732-735-3599

Skills

- **Programming Languages:** Python, Java, JavaScript
- **Frameworks & Libraries:** PyTorch, TensorFlow, scikit-learn, React, Node.js
- **Machine Learning & AI:** Neural network design, predictive modeling, data analysis, model deployment
- **Software Engineering:** Data structures, algorithms, full-stack development, API integration
- **Cloud & DevOps:** AWS, Google Cloud Platform (GCP), Docker
- **Development Tools:** Git, Linux, VS Code, Jupyter Notebook
- **Core Competencies:** Object-oriented programming (OOP), scalable system design, AI-driven application development

Work History

Software Developer Intern

Sep 2023 – Present

JN DATA Resolution, Parsippany, NJ

- Designed middleware to accelerate and compartmentalize SAS development.
- Created utilities to automate routine BI tasks.

Primary Co-lead

Jun 2023 – Present

Rutgers Rail Program, Piscataway, NJ

- Leveraged ChatGPT-4 API to generate queries for Prof. Xiang Li's Rail Crossing Database.
- Built a chat-driven virtual assistant and produced real-time visualization charts and maps.

Software Developer

May 2023 – Sep 2023

Samsung, Hong Kong

- Maintained complex SQL queries, data views, and stored procedures for production systems.
- Improved data pipelines and enhanced lookup performance.

Dissertation Project Research Assistant

May 2023 – Aug 2023

Rutgers University, Piscataway, NJ

- Developed a Selenium-based web crawler for data extraction.
- Aggregated statistical results for Dr. Jing Yang's research project.

Education

Master of Science: Electrical and Computer Engineering

Expected May 2026

Johns Hopkins University – Baltimore, MD

Focused on speech and language processing, combining probabilistic models (Markov chains, HMMs, CRFs) with modern deep learning and large language model (LLM) techniques. Coursework and research include machine learning, NLP, speech recognition, and neural network architectures for text and multimodal understanding.

Bachelor of Science: Computer Science

May 2024

Rutgers, The State University of New Jersey – New Brunswick, NJ

Computer Science Department Honor Graduate; Dean's List (5 semesters)