

Haodong Wu

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EDUCATION

New York University, New York, NY

09/2021-Expected 05/2023

Master of Science, Computer Science, GPA: 3.8

New York University, New York, NY.

09/2017-05/2021

Bachelor of Arts, Computer Science, GPA: 3.7

Coursework: Data Structure, Basic Algorithms, Operating System, Natural Language Processing, Computer Vision

SKILLS

- Programming Language: Java, JavaScript, Python, Ruby, TypeScript, C++, C#, SQL
- Frameworks: React, Ruby on Rails, Node.js, Django, Spark, Hadoop, Numpy, Pytorch
- Database: GraphQL, MySQL, MongoDB, Redis
- Other Tools: CircleCI, Docker, AWS, Kafka, RSpec, Mocha

WORK EXPERIENCE

Justworks | New York, NY

06/2022-08/2022

Software Engineer Internship

- Migrated 5 payment REST APIs to GraphQL resolver nodes with Ruby on Rails; Used Rubocop to lint code
- Wrote 16 unit tests, 10 integration tests in RSpec with 80% coverage, validating authentication and data correctness
- Optimized resolvers by preloading child fields to avoid the N+1 problem in GraphQL, increased query speed by 68%
- Applied Object-Oriented Design (Interface and Inheritance) and design patterns (Factory, Builder, Lazy Initialization)
- Refactored legacy code to be reused in GraphQL resolver, changed frontend code from REST APIs call to GraphQL

Take-Two Interactive Software | New York, NY

06/2021-08/2021

Workplace Engineer Summer Internship (performed as Software Engineer)

- Implemented an issue-tracking system in a slack bot that has 6,000 active internal users
- Prototyped Slack user interface for the bot and refactored hard-coded UI into maintainable components using Bolt.js
- Expanded 6 features in bot, including channel renaming, archiving and user invitation; Reduced 90% of manual work
- Containerized the slack bot application and automated CI/CD pipeline with Docker, AWS ECS and Terraform

Remee Inc. | New York, NY ([Link](#))

09/2020-03/2021

Software Engineer Internship

- Developed a serverless web application with React that allows users to login and register, write and comment posts
- Maintained backend code involving AWS Lambda functions that handle front-end requests such as likes and saves
- Optimized the website performance by caching user information and recent posts into local storage
- Developed a React Native app based on Figma blueprint and responsively designed using relative pixels
- Implemented image uploading feature, personal settings page; integrated Giphy API to render gifs in posts
- Synced Algolia with DynamoDB server automatically and improved search speed by 50%

Suzuki Lab | New York, NY ([Link](#))

03/2020-05/2021

Software Engineer Internship

- Implemented JSON to CSV file conversion script with python and streamlined data exportation from server to Dropbox with crontab and Dropbox API
- Developed multiple web pages with HTML, CSS and vanilla JavaScript that collects over 5,000 JSON files
- Integrated credit distribution website and automatically assigned credits to over 300 students based on unique URLs
- Designed and built more than 10 pages that serve questionnaires and Unity applications on the Django lab website

PROJECTS

NYU Secondhand Web Application ([Link](#))

- Developed a secondhand transaction web application with React.js and MaterialUI; Worked in Agile environment
- Used React Context to centralize data sharing among components. Applied lazy import to efficiently load components
- Saved server storage by implementing image compressor and made it a reusable component
- Constructed codebase with MVC model that separates AJAX interactions from UI. Lint code with prettier and ESLint
- Implemented 10 REST APIs with express.js and used Axios to asynchronously fetch data

Neural Transfer with VGG Network ([Link](#))

- Built a neural transfer network which converts an image into a piece of artwork with Pytorch
- Implemented the network based on VGG-19 and VGG-16; trained a real-time network that gives results in seconds
- Used data augmentation, upsampling and different optimizers to hypertune training results