

# PENGRUI MA

[pengruima.com](http://pengruima.com) | [github/pengrui](https://github.com/pengrui)

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## EDUCATION

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**New York University**—M.S. in Computer Engineering(GPA: 3.77/4)

*Sep. 2021 - May. 2023*

**University of Science and Technology of China**—B.S. in Computer Science

*Sep. 2017 - July. 2021*

## TECHNICAL SKILLS

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**Programming Language:** Java, Python, JavaScript, PHP, Bash/Shell Scripting

**Frameworks:** React, Django, Spring Framework, Node.js, Next.js, Angular, Bootstrap

**Database:** MongoDB, MySQL, PostgreSQL

**CI/CD & Cloud Service:** AWS, Git, Docker, Jenkins, Travis-CI, Vercel, Heroku

**Architecture & Methodology:** Microservices, Object-Oriented Programming, MVC

## WORK EXPERIENCE

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**Software Engineer Intern**

May. 2022 - Aug. 2022

*Meta Platforms, Inc*

*Seattle - United States*

- Worked on improving fundamental aspects of the real-time business impersonation detection flow for high-value brands with **Machine Learning** technologies in Ads problem team.
- Set up multiple data pipeline with **Python** to expand image detection recall and implemented new trigger in back-end enforcement infra with **PHP** for similarity detection.
- Manipulated data with **SQL** and analyzed with **GraphQL**. Retrieved feature and retrain entity-agnostic classifier.
- Achieved **94% detection rate** and improved **21% daily match volume** of imposters on extended coverage of photos.

## PERSONAL PROJECT

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**Highly Scalable MERN-Stack Application – [Hacker.io](https://hacker.io)**

- A real world app listing of useful online courses and tutorials with high scalability. Low cost of operation and implement some functionalities to make much easier, fun and engaging for users to post/view.
- Developed with **React** and **Next.js** for client-side and **Node.js**, **Express**, **MongoDB** for server-side.
- Set up **AWS** services such as **S3** for files storage, **SES** for sending emails and **EC2** for cloud hosting. Use **MongoDB Atlas** for cloud data storage.

**Django and Next.js Full-Stack Web Application – [ezPizza](https://ezpizza.com)**

- A pizza shopping website where users can smoothly navigate main page and different pizza details page.
- Utilized **Django** and **REST framework** to create restful APIs, used **Next.js** and **React** for client-side.
- Deployed client part to **Vercel** and server part to **Heroku**.

**Full-Stack Application based on Angular and Spring Boot – [Luv2Shop](https://luv2shop.com)**

- An online bookstore supports viewing books based on categories, searching for keywords and checking out.
- Utilized **Angular** for client-side and **Spring Boot** for server-side linked with RESTful API.
- Generated and updated component with **TypeScript** class with Angular service and integrated HTML template with **Bootstrap** CSS to style.
- Created RESTful APIs with Spring Data **JPA Repositories** and utilized Angular validators and JWT for check-out validation and authorization.

**Reinforcement Learning – [SuperMario](https://supermario.com)**

- Trained a Super Mario Agent to clear Super Mario Bros with deep reinforcement learning methods.
- Set up a Mario Environment with OpenAI Gym and preprocessed Mario for Applied **Reinforcement Learning**.
- Built a Reinforcement Learning model with **PyTorch** and **PPO** Algorithm to play the game.
- Took tests of the final result to clear all the levels of Super Mario Bros.