# Zhanghu Zhao

+(358) 414702977 ◇ zhanghu.zhao@outlook.com ◇ Helsinki, Finland

https://zhanghu.netlify.app ◇ https://www.linkedin.com/in/zhanghu-zhao-711106232/

## EDUCATION

**University of Helsinki** *September 2022 - July 2024*
M.S. in University of Helsinki, Department of Computer Science (GPA:4.64/5) *Helsinki, Finland*

**Soochow University** *September 2017 - June 2021*
B.S. in Soochow University, Department of Computer Science and Technology (GPA: 3.8/4) *Suzhou, China*

## WORK EXPERIENCE

**Bravori** *November 2023 - December 2023*
*Junior Software Developer* *Helsinki, Finland*
- Developed over 10+ pages and features for an online Music Education App using **React Native** for the frontend and **Firebase** for storage, aligning with **Figma** designs and **Trello** project management
- Orchestrated regular **Slack** meetings with a cross-functional team of ten members, consisting of developers and designers, to translate design concepts into reliable code and maintain effective communication throughout the development process

**University of Helsinki** *June 2023 - November 2023*
*Research Assistant* *Helsinki, Finland*
- Collaborated seamlessly with professors across multiple disciplines to contribute to cutting-edge New Particle Formation (NPF) research
- Led evaluations comparing traditional **Machine Learning methods** (Logistic Regression, Support Vector Machine, Naive Bayes) with state-of-the-art **Deep Learning techniques** (including AlexNet and Mask RCNN)
- Pioneered the establishment of a novel pipeline for New Particle Formation (NPF) **classification**

## PROJECTS

**Auction** *August 2023 - October 2023*
- Designed and implemented backend services in **ASP.NET** with **MongoDB** and **Postgres**, emphasizing secure service-to-service communication with **RabbitMQ** and **gRPC**.
- Developed a dynamic client-side application using **Next.js** and **Typescript**, featuring **SSO** and real-time push notifications via **SignalR**.
- Established efficient **CI/CD** pipelines using **GitHub Actions** and enabled seamless local deployment using **Docker Compose**.

**Snake** *June 2023 - August 2023*
- Implemented robust and efficient **WebSocket** connections, enabling seamless real-time communication between the game server and multiple clients.
- Developed secure RESTful APIs on the backend using **Spring Boot**, featuring comprehensive authorization, player matching, and code execution capabilities.
- Crafted an interactive frontend user interface using **Vue.js**, **Bootstrap**, **JavaScript**, and **jQuery** to elevate user engagement and enhance the overall gameplay experience.

**Cookify** (https://cookify-dralnmatthew.netlify.app/) *April 2023 - June 2023*
- Spearheaded the development of a full-stack platform, utilizing **Node.js** and **Express** for the backend API and **React.js** along with **Redux** for efficient frontend app state management.
- Designed and implemented a **MongoDB** database to seamlessly store, manage, and process data. Utilized **Cloudinary** for static images storage.
- Implemented authentication security measures by integrating **JSON Web Token (JWT)** and email verification mechanisms.

**E-Commerce** (https://dralnmatthew.com/) *October 2022 - December 2022*
- Engineered and maintained the website using **Django**, implementing crucial features such as user authentication and comprehensive product catalog management.
- Integrated the **PayPal** payment gateway and leveraged **AWS S3** for efficient cloud-based file storage.
- Orchestrated the deployment process on **AWS Elastic Beanstalk**, guaranteeing high availability and scalability of the application.

## SKILLS

- **Programming Languages:** Python, Java, JavaScript, C/C++, C#, R
- **Web Development:** Django, Spring Boot, ASP.NET, Node.js, React.js, Vue.js, Next.js, HTML5/CSS, MongoDB, PostgreSQL, MySQL, Redis, RabbitMQ, Docker, CI/CD, AWS, GCP, Git, Linux, VSCode, IntelliJ
- **Machine Learning Libraries:** NumPy, Matplotlib, Pandas, Scikit-Learn, PyTorch