Shuangning Wei

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PROFESSIONAL SUMMARY

Computer Science MSc graduate at University College Dublin with hands-on experience in full-stack and backend software development. Experienced in building, deploying, and maintaining web applications and distributed systems using Java, Spring Boot, React, Docker, and Kubernetes. Background in architecture contributes strong system thinking, quality focus, and effective cross-functional communication.

EDUCATION

MSc in Computer Science | University College Dublin   Dublin, Ireland
Major Courses: Web Application Development(A), Software Engineering (A),   Sep. 2024 – Jan. 2026
Networks & Internet Systems(A-), Distributed Systems(A-), Cloud Computing(A)   GPA: 3.81/4.2

MSc & BSc in Architecture | Huazhong University of Science and Technology   Hubei, China
Relevant Coursework: Visual Basic Programming, Computer-Aided Architectural   Sep. 2011 – Jun. 2019
Design, Digital Tectonic Theory and Practice   GPA: 85.61/100

Exchange program in **Master Integrated Design | Hochschule Ostwestfalen-Lippe**   Detmold, Germany
University of Applied Sciences   Feb. 2018 – Aug. 2018
International exposure strengthening cross-cultural communication and adaptability

TECHNICAL EXPERTISE

Languages: JavaScript, Python, Java, SQL, HTML, CSS
Frameworks: React, Next.js, Flask, Spring Boot
Databases: PostgreSQL, MySQL, MongoDB, Redis, H2
Cloud & DevOps: Docker, Nginx, Kubernetes, AWS, Firebase, Git
Big Data & Analytics: Hadoop, Hive, Pandas, NumPy, Scikit-learn
Architecture & Messaging: REST, Kafka, Microservices, gRPC
Design & Visualization: Tableau, Vega-Lite, Figma, Adobe Suite

PROJECTS

CineQuest (Microservices, Kubernetes, Kafka, gRPC)   Dec. 2025
https://github.com/Shelly892/CineQuest.git

- Contributed to the design and implementation of a distributed microservice-based platform with clear service boundaries and architectural trade-off analysis
- Developed the Movie Service integrating an external TMDB API with Redis caching to reduce latency and handle rate limits
- Implemented the Notification Service, consuming Kafka events to deliver asynchronous email notifications without blocking core user workflows
- Created the complete React frontend with responsive design, and integrated it with backend services via a centralized API Gateway
- Participated in containerization and deployment using Docker and Kubernetes

SmartTrip NYC (React, Spring Boot, Flask, PostgreSQL, Docker, Nginx)   Jul. 2025
Maintenance Lead
https://github.com/Shelly892/SmartTripNYC.git

- Led system maintenance phase, coordinating frontend, backend, and ML teams to ensure platform stability
- Implemented frontend and backend changes to improve authentication flows, including JWT-based authentication

and Google OAuth integration, while managing bug fixes, feature requests following agile practices
- Managed production deployment using Docker Compose, Nginx, and automated CI/CD pipelines

Dublin BikeShare App (Flask, JavaScript, html/css, REST, AWS EC2, Chart.js)   May 2025

https://github.com/Shelly892/Bike-app-repository.git
- Developed full-stack web application displaying real-time Dublin bike availability and weather conditions
- Integrated Google Maps API to visualize geospatial data and real-time availability heatmaps
- Implemented predictive analytics charts using historical data to forecast peak usage period and support data-driven decisions
- Deployed the web app on AWS EC2 successfully
- Facilitated agile practices, managed project timeline and task allocation

Heart Disease Risk Analytics Dashboard (Hadoop, Hive SQL, JavaScript)   Nov. 2025

https://github.com/Shelly892/HeartRisk-Analytics.git
- Built a cloud-based data analytics pipeline using Hadoop HDFS and Hive to process and analyze clinical datasets
- Implemented SQL-based data preprocessing and rule-based risk scoring to identify demographic and risk-level patterns in patient data
- Developed an interactive web dashboard and risk calculator to visualize analysis results and provide real-time risk assessment for users

WORK EXPERIENCES

Teaching Assistant (Demonstrator) | University College Dublin   Dublin, Ireland

Sep. 2025 - present
- Supporting Python programming students through tutorials and code reviews
- Identifying coding errors and providing constructive feedback on assignments

Architect | CITIC General Institute of Architectural Design and Research   Hubei, China

Jul. 2022 – Jan. 2024
- Managed timelines, budgets, and quality for large-scale projects under technical and regulatory constraints
- Translated complex technical requirements into structured specifications and documentation
- Collaborated with cross-functional teams and external stakeholders to ensure compliant project delivery

Junior Architect | WSP Architects   Beijing, China

Jun. 2019 – Mar. 2022
- Coordinated tasks and deliverables across multiple projects in collaboration with senior team members

ADDITIONAL INFORMATION

Languages: English (Fluent), Mandarin (Native)

Certifications: Certificate in Social Innovation: kompakt (ZGI:kompakt) – Germany

Interests: tennis, digital content creator, photography and videography

Availability: Feb. 2026

Authorization: Stamp 1G Graduate Visa (Ireland)