Fan Chenghao

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EDUCATION

Harbin Institute of Technology, Harbin, Heilongjiang, China *Sep 2021 – Expected Mar 2024*
Major: M.S. in Architecture *Average Score*: 85.5/100
Field of Study: Intelligent Architecture, Human-Computer Interaction
Core Coursework: Digital Architecture Theory and Methodology, Method and Technology of Architecture Computer Numerical Control Construction
Oversea Exchange Experience: 2023 Deep Learning Winter Programme, Girton College, Cambridge, online

East China Jiaotong University, Nanchang, Jiangxi, China *Sep 2016 – June 2021*
Major: B.A. in Architecture *Average Score*: 87.2/100 (top 2%)
Core Coursework: Calculus (95/100), Fundamentals of Computer Aided Design, Fundamentals of Building Information Modeling, Architectural Mechanics (95/100), Architectural Physics, Architecture Structure

WORK EXPERIENCE

Inspur Co., Ltd., Digital Government Business Unit, Nanchang, Jiangxi, China
Java Backend Development Engineer Intern *Jun 2023 – Aug 2023*
- Spearheaded and implemented key modules in the comprehensive government affairs platform with 4 developers, specifically focusing on data statistics and strategy implementation for operations and maintenance management.
- Redesigned and normalized the databases for 2 projects based on the RBAC model, reducing data redundancy and improving data integrity, which resulted in a 13% increase in transaction processing speed.

Jiangxi Diyue Technology Development Co., Ltd., Nanchang, Jiangxi, China
Java Backend Development Engineer Intern *Jun 2022 – Aug 2022*
- Worked on the development of a highway system software, primarily utilizing Spring Boot, Mybatis-Plus, and Redis.
- Collaborated with a team to design and develop 8 different interfaces for the management module of a software system.

Jiangxi Provincial Architectural Design and Research Institute Group Co., Ltd., Nanchang, Jiangxi, China
Architect Intern *Aug 2020 – Jan 2021*
- Participated in the bidding process for dozens of government projects, successfully securing contracts for 4 projects.
- Led the development of architectural designs for various types of projects, including hospitals, residential buildings, schools, and integrated elderly care communities.
- Responsible for creating architectural models and 3D visualizations, aiding in improved client comprehension.

PROJECTS

"One-stop" Government Comprehensive Service Platform *Jul 2023*
Technical Stack: Spring + SpringMVC + SpringBoot + MyBatis-Plus + Redis + Maven + SpringSecurity
Overview: The platform integrated relevant services from various government departments and industries, providing convenient and efficient government services for businesses and individuals.
- Responsible for developing 5 comprehensive management information modules in the system, including project approval, detailed statistics, information export, and others.
- Implemented login authentication and access control using the Spring Security framework.
- Optimized the platform's performance by implementing caching mechanisms, resulting in a 18% reduction in response time.

Electromechanical Asset Maintenance System *Jul 2022*

Technical Stack: Spring + SpringMVC + SpringBoot + MyBatis + Redis + Maven

Overview: The system integrated various technologies and data sources, enabling intelligent comprehensive management of mechanical and electrical maintenance through a process-driven approach powered by an intelligent analysis engine.

- Optimized existing SQL queries, reducing average query response time by 35%, thereby enhancing the user experience.
- Built RESTful APIs to manage search and delete requests for thousands of users with basic authentication.
- Created responsive frontend using HTML, CSS and JavaScript.

RESEARCH EXPERIENCE

Research on Intelligent Illumination in Self-Study Spaces Based on Visual Fatigue: Case of Harbin Institute of Technology Library

School of Architecture, Harbin Institute of Technology

- Conducted on-site surveys to collect physical parameters of 7 types of spaces, representing 3 major categories.
- Gathered subjective data from 223 respondents to supplement the objective findings.
- Constructed a simulated experimental environment and conducted long-term visual fatigue simulation experiments on 15 participants using an eye tracker, under varying illuminance levels (1.5 hours per person).
- Analyzed 1420 sets of experimental data using Origin to establish a mathematical model for the relationship between visual fatigue and lighting environments.
- Proposed a design solution for an intelligent lighting environment system based on the quantitative results obtained.
- Employed human-computer interaction technology to optimize the system, improving the user experience.

EXTRACURRICULAR EXPERIENCES

Assistant at the School of Architecture, Harbin Institute of Technology *Sep 2022 – Dec 2022*

- Responsible for undergraduate courses in Architecture and New Media (30 students).
- Actively attended lectures, providing support to the instructor during classroom teaching.
- Assisted in guiding classroom discussions, answering students' questions, and offering feedback on group assignments.

Designer of the Emblem for the Future Technology Institute at Harbin Institute of Technology *Oct 2022 – May 2023*

- Completed information collection and emblem design work independently, winning from the school's public bidding.

Curators and Exhibitors of " the Omni World", the Art & Design Education FutureLab , Shanghai *Dec 2022*

- Designed the layout of the exhibition area for Harbin Institute of Technology.
- Exhibited the design proposal for the personal-led project "Future Home".

Curators of the CADE architectural design exhibition, Shanghai *Aug 2023*

- Designated as a key member, responsible for the layout and composition of exhibition areas.

HONOURS

- East China Jiaotong University First-Class Scholarship *Academic Year 2017 – 2018*
- East China Jiaotong University Second-Class Scholarship *Academic Year 2018 – 2019*
- The Third Prize of Excellent Graduation Design Competition for Higher Education Institutions, Jiangxi *Jun 2021*

TECHNICAL SKILLS

Languages: Mandarin (Native), English (Fluent, CET-6: 592, IELTS: 7.5(7.0))

Programming Languages: Java, Python, SQL

Developer Tools: Idea, Eclipse, MySQL, Maven, Git

Frameworks/Technologies: Spring, SpringMVC, SpringBoot, SpringCloud, MyBatis, MyBatis-plus, Redis

Others: MS Office, Origin, Adobe Photoshop, Adobe Illustrator, Adobe Indesign, Rhino, AutoDesk CAD, SketchUp