Yuquan Bu

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SUMMARY

Solution-focused software engineer with over 2 years of development experience in web and big data areas. A creative and resilient young professional, who has mastered technologies like Java, Python, SQL, Javascript over the years, is ready to embrace any challenge and bring value to the team.

EDUCATION

University of Rochester, Rochester, NY — M.S Computer Science — Aug 2023 - May 2025

Southwest University, China — B.E Electronic Information Engineering — Sep 2019 - Jun 2023

- Relevant Coursework: Programming, Data Structure, Java Language Programming, Principle and Application of Database, Computational Intelligence, etc.

EXPERIENCE

Location-based Event Search and Ticket Recommendation Web Service — Mar 2023 - May 2023

- Developed an interactive web page for users to search events and purchase tickets (**HTML, CSS, JavaScript, AJAX**).
- Improved personalized business recommendations based on search history, favorite records and **content-based** algorithm.
- Created Java servlets with **RESTful** APIs to handle HTTP requests and responses.
- Built relational databases (**MySQL**) to capture real business data from DamaiTicket API; Implemented Non-SQL database (**MongoDB**) to migrate event data from DamaiTicket API for better scaling.
- Deployed servers to Amazon Web Service EC2 to handle **300** queries per second.

A Spring- and Hibernate-based Shopping and Ordering System — Jan 2023 - Mar 2023

- Built a web application based on **Spring MVC** to support item search and listing (dependency injection, inversion of control, REST API, etc.).
- Implemented security workflow via in-memory and JDBC authentication provided by Spring Security.
- Utilized Hibernate which provides a caching mechanism which increased performance, so as to reduce development time.
- Developed a Spring Web Flow to support item ordering.

Application of Advanced Control Technology in Hot Strip Rolling — Jul 2022 - Dec 2022

- Identified the 1700ASP hot rolling site of Anshan Iron and Steel Group Co., Ltd. as the experimental platform, with the objective of introducing new control theories and methods to enhance control performance.
- Implemented the enhancement of the Proportional Integral Derivative (PID) control strategy by incorporating a Radial Basis Function (**RBF**) neural network into the Automatic Gauge Control System.
- Improved the precision of head hits during strip penetration in the Hot Strip Mill Finishing Unit threading, as well as the accuracy percentage of strip thickness throughout its entire length.

Deep Image Inpainting — Jul 2022 - Sep 2022

- Designed and implemented a deep neural network model to reconstruct damaged images on Google colab. Optimized precision by using Vanilla Convolutional Atoencoder model.
- Tested 600 photos with above **95%** accuracy.

SKILLS & OTHERS

Programming Languages: Java, Python, SQL, C, C++, Scala, JavaScript, HTML&CSS.

Framework & Tools: Spring MVC, Spring-boot, MySQL, Amazon Web Services, Google Colab.

Languages: English, Chinese.