

# (Leo) Wanquan Zhang

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## WORK

### Senior Associate Software Engineer

Feb 2025 – Present

DISCOVER FINANCIAL SERVICE

Chicago, IL

- Led the Discover Home Loans Secure Document Upload **React** Redesign Project to enhance user experience, improve accessibility, and optimize performance
- Developed the backend for the Discover Home Loans Secure Document Upload pages in **Spring Boot**, enabling document uploads, virus scans, and automated email confirmations
- Enabled the capture and validation of NMLS IDs from client-agent email communications in **Java**, ensuring accuracy and compliance with regulatory requirements

### Associate Software Engineer

Aug 2023 – Feb 2025

DISCOVER FINANCIAL SERVICE

Chicago, IL

- Improved Discover Personal Loans Application pages using **React** to enhance user flow and reduce abandonment rates
- Developed custom **Adobe Experience Manager** (AEM) components to facilitate the migration of the Discover Personal Loan Resource Center from WordPress to AEM
- Implemented dynamic **SEO schema** generation for Discover Personal Loan pages, enhancing search engine visibility based on page content
- Enabled tracking of referring web pages to the personal loan application page, improving user journey insights

### Software Engineer Intern

June 2022 – Aug 2022

DISCOVER FINANCIAL SERVICE

Riverwoods, IL

- Optimized cryptogram management performance by integrating **Redis** as a caching layer, reducing reliance on Postgres and improving system efficiency
- Developed an endpoint that validated and reformatted over 1 million account update requests from card issuers in **Spring Boot**
- Utilized **RabbitMQ** and **Kafka** to distribute re-processed account update requests

## EDUCATION

### University of California, San Diego

GPA: 3.6

Bachelor of Science in Mathematics-Computer Science

Sept 2019 - Jun 2023

## PROJECTS

### DevSphere – Personal Website

May 2024 - Sep 2024

Link: <https://github.com/Leo10250/Dev-Sphere>

- Developed a web application using Vite, TypeScript, and SCSS, resulting in a fast and efficient development environment.
- Implemented responsive design principles to ensure optimal user experience across various devices and screen sizes.
- Deployed the application on GitHub Pages, facilitating easy access and demonstration of the project.

### ReadSense – Book Category Predictor

Sep 2022 - Dec 2022

Link: <https://github.com/Leo10250/Amazon-Question-Type-Predictor>

- Built a machine learning model to predict book categories based on Amazon user reviews.
- Applied **TF-IDF** vectorization and lemmatization to enhance text processing and filter stopwords.
- Achieved ~80% accuracy on a dataset of 10,000 Amazon reviews using **Python**.

### HuffComp – File Compressor

Jan 2022 - Mar 2022

Link: <https://github.com/Leo10250/File-Compressor>

- Developed a Huffman Encoding-based file compression tool in C++.
- Achieved an average compression rate of ~40%, optimizing storage efficiency
- Designed an efficient header structure to store the encoding tree for lossless decompression

### Calm Leo – Discord Bot

June 2021 - Sep 2021

Link: <https://github.com/Leo10250/Discord-Bot>

- Developed a **Python-based** chatbot with moderation tools and interactive mini-games to enhance server engagement
- Integrated APIs to retrieve and display data from Reddit and Urban Dictionary for real-time information access
- Automated community interactions by engaging with active server members, improving user retention and participation

## SKILLS

**Frameworks:** React, Spring Boot, Adobe Experience Manager (AEM)

**Programming:** Java, JavaScript, HTML/CSS, TypeScript, Python, C/C++, ARM Assembly, PostgreSQL, AWS, REST APIs, Postman

**Certificates:** AWS Practitioner Certificate