April(Lingxi) Zhou

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Education

Columbia University — New York, NY
Master of Science in Computer Science — *Expected Dec 2024*
Bachelor of Science in Operations Research — *Graduated 2020*
GPA: 3.9 | Dean's List | Tau Beta Phi Honor Society

Projects

CareGuard | *Spring Boot, Java, MySQL* — August 2023

- **Dynamic Management System with Authentication:** Led a team of 4, designed and developed an Integrated Communication and Management System using Spring Boot, incorporating JWT-based authentication and robust user management features, deployed the application on AWS EC2
- **MySQL & RESTful APIs:** Established a comprehensive data schema in MySQL and implemented RESTful APIs to streamline tasks such as user onboarding, content publishing, and data access
- **Granular Access Controls:** Implemented dynamic access controls using Role-Based and Attribute-Based methodologies, coupling with JWT-based authentication for identity verification; utilized Access Control Lists for granular permissions and integrated contextual parameters like location and time for enhanced security
- **Comprehensive System Testing:** Adopted a systematic testing approach using JUnit for unit testing, followed by integration tests, complemented by a CI/CD pipeline; leveraged Postman for comprehensive End-to-End API testing

AdventureAwaits | *Node.js, MongoDB, Express, React* — July 2023

- **Full-Stack Development:** Architected a responsive full-stack application using the MERN stack, optimizing user and agent interfaces through a high-performance Node.js backend. Delivered efficient data retrieval via RESTful API endpoints, and harnessed MongoDB with Mongoose for sophisticated data structuring and ORM
- **Security & Advanced Authentication:** Established a JWT-centric robust authentication system, integrating bcrypt for secure password hashing, meticulous user sign-up validations, and fortified route protections. Introduced tokenized email-based recovery procedures and HttpOnly cookies for secure session management
- **Engaging UX and Transactional Features:** Incorporated the Mapbox API to generate a dynamic geospatial mapping experience, enhancing user engagement. Seamlessly blended Stripe API for reliable and secure financial transaction processing

Professional Experience

EY-Parthenon — Oct 2021 – June 2023
Associate Consultant in Software Sector — *New York, NY*

- **Tech Landscape Expertise:** Drove key components of strategy formulation and buy-side diligence for tech acquisitions in the SaaS, cybersecurity, and EdTech realms. Collaborated with cross-function teams, fueled the success of over 15 projects and deals amassing $3bn
- **Strategic Planning & Communication:** Orchestrated the integration of strategic planning and revenue diversification for a prominent higher-ed software solution provider. Coordinated with teams to craft roadmaps and prioritize initiatives, relaying insights and data that catalyzed a forecasted growth spike of 15%
- **In-depth Tech Market Research:** Conducted rigorous market trend analysis and competitive assessments for a pivotal cybersecurity spin-off through Key Opinion Leader primary research and spearheaded decision-maker surveys, derived insights that informed the acquisition strategy, culminating in the successful acquisition of both companies

Shiseido — Jan 2019 – Sep 2019
Data Scientist Intern — *New York, NY*

- **Webpage Design Analysis:** Implemented machine learning techniques like Random Forest, Boosting Algorithms, and Logistic Regression in Python to determine optimal website elements to advise the UI team on optimal word choices, description lengths, image count, and layout configurations
- **Personalized Recommendations:** Deployed topic modeling on customer reviews to extract dominant themes and sentiments, enhancing the recommender system's accuracy and offering tailored cosmetic product suggestions based on user preferences and feedback trends
- **Clustering & Customer Behavior Analysis:** Utilized clustering techniques to reveal key insights for similarities among top-performing stores, identified the criticality of distance-related factors