Katherine Zeng

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EDUCATION

Northeastern University, Boston, MA **Khoury College of Computer Sciences**

Sept. 2020 – Present Expected May 2024

Candidate for Bachelor of Science in Computer Science and Business Administration

Honors: GPA 3.67 / 4.00 – Dean's List

Relevant Courses: Object-Oriented Design, Web Development, Software Engineering, Algorithms & Data,

Database Design, Mobile Application Development, Programming in C++,

Networks & Distributive Systems, Foundations of Data Science, Math of Data Models

Activities: Women in Tech, Generate Product Development, HackBeanpot

Interests: Classical Chinese Dance, Piano, Badminton, Archery, Painting, Photography

TECHNICAL SKILLS

Languages: Java | Python | TypeScript | JavaScript | HTML | CSS | SQL | C++

Software/Systems: Visual Studio Code | IntelliJ | Git | Postman | MongoDB | Jira | MySQL | Firebase |

Android Studio | Microsoft SQL Server | Linux | Docker

Frameworks: React | Spring Boot | Express.js | Angular

EXPERIENCE

Software Engineer | HackBeanpot, Boston MA

April 2023 – Present

- Participating in weekly agile meetings and code reviews using React and TypeScript to ensure seamless hackathon experience.
- Optimized internal tools, migrated Python sorting algorithm to TypeScript, and elevated main site UI to accurately analyze 250+ hackers and engage potential sponsors.

Software Engineer | Generate Product Development, Boston MA

Jan. – April 2023

- Collaborated with cross-functional team to create mobile app that provides mental health support using TypeScript, Express.js, and React Native.
- Implemented iOS native UI components, timeseries collection, and authenticated CRUD operations within MongoDB database tracking user health data, including heart rate and daily step counts.

Full-Stack Software Development Co-op | Entrust Corporation, Concord MA

July - Dec. 2022

- Developed full-stack solutions on web applications and back-end systems, such as compromised key validation, account assignment, and record updates for salespeople.
- Utilized Java Spring Boot, JSP, Kendo UI, Angular, Microsoft SQL Server, Tomcat, and RESTful web services to build administrative tools that optimized experience for 150+ clients.
- Improved developer efficiency by fixing bugs and writing Angular documentation.
- Organized wireframe meetings, presented demos, and partnered with senior architect to discuss features and enhancements with salespeople, support representatives, PMs, and developers.

PROJECTS

Movie Exploration Hub (CineScope) | *React, Node.js, MongoDB*

May - July 2023

- Deployed web application that displays, filters, and finds movies using React, Bootstrap, Redux, Node.js, Express.js, REST APIs, and MongoDB.
- Incorporated login authentication, state management, routing, and customized viewing / editing permissions for users with different roles.
- Ensured responsive view and connection to external movie database API.

BGP Router | *Python*

Feb. 2023

- Built client and server-side code for packet routers to propagate JSON data across a network.
- Applied routing logic, sockets, and IP address/subnet mask manipulation to navigate internet infrastructure.

Image Processing | *Java (Java Swing)*

June 2021

- Pair-programmed interactive Java GUI application centered around layered image manipulation.
- Leveraged the Model, View, Controller architectural pattern to create images programmatically, import and export images, manipulate individual layers, and add image transformations.
- Implemented [Unit testing framework and S.O.L.I.D principles to ensure code functionality and robustness.