# **Bhushan S Khope**

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#### **Education**

# Indiana University, Bloomington

Jan. 2022 - Dec. 2023

Master of Science, Computer Science

Bloomington, Indiana

Courses: Applied Algorithms, Applied Distributed Systems, Software Engineering, Applied Machine Learning, Data Mining

# **GH Raisoni College of Engineering and Management**

Aug. 2016 - May. 2020

Bachelor of Technology, Computer Engineering

Pune, Maharashtra

Courses: Machine Learning, Operating System, Object-Oriented Programming, Cloud Computing, Data Structures

# **Technical Skills**

Languages & OS: Java, C#, Python, JavaScript (ES6+), SQL, HTML, CSS, Bootstrap, Typescript, C++; Windows, Linux Frameworks & Libraries: Angular, React, Spring-boot, Flask, Django, Angular Material, REST, Mongoose, Robot, Selenium.

Databases & Cloud Technologies: MySQL, PostgreSQL, MongoDB, AWS S3, EC2, Lambda

Tools: Redux Toolkit, React-Redux, GitHub, Docker, Jenkins, Jira, TestRail

#### **Experience**

#### **CNS - Indiana University**

May 2022 - June. 2024

#### Angular Developer humanatlas.io

Bloomington, Indiana

- Led the development of a responsive user interface for an NSF-Funded biomedical visualization project using Angular, resulting in a **29% increase** in user engagement.
- Remodeled a legacy groovy script by implementing markdown file generation to streamline content rendering, resulting in a **12% reduction** in server resource utilization.
- Successfully designed and employed **12+ reusable** and high-performance user interface components using Angular Material, resulting in a significant 18% reduction in development time while enhancing the overall user experience.
- Successfully attained 93% code coverage for Angular components by using Jest.
- Created Zod objects and employed the Zod-to-JSON library to facilitate YAML file validation through the exported JSON schema. This resulted in a flawless **100% reduction** in developmental errors, ensuring robust data validation.
- Architected and managed a CI/CD pipeline that reduced software deployment times by 30% and increased project efficiency

Accenture Dec. 2020 - Oct. 2021

Application Development Associate

Pune, Maharashtra

- Crafted a responsive web application using React.js and JavaScript, leading to a 23% enhancement in user satisfaction.
- Engineered 2 efficient and reusable functional components, resulting in an impressive **18% reduction** in code redundancy.
- Worked closely with UI/UX designers to translate design into code resulting in a 23% improvement in user satisfaction.
- Formulated comprehensive unit tests employing Jest and React Testing Library, yielding an outstanding **85% code coverage**, ensuring the robustness and reliability of the code.
- Participated in code reviews, 20+ sprint sessions as part of agile methodology fostering improvement in team productivity.

#### **Projects**

# **Foody** | React, Tailwind CSS, React-Redux foody-bk.netlify.app

Sept. 2023

- Engineered a React 18 based food delivery application, showcasing React fundamentals and Tailwind CSS for UI design.
- · Created over 10 components, custom hooks, higher-order components, and controlled components within project.
- Used React Redux and Redux Toolkit to establish and manage the store and slices.

#### ChirpChat | React, NextJS, MongoDB, TypeScript, Tailwind CSS chirp-chat.vercel.app

Aug. 2023

- Programmed ChirpChat, an innovative social media platform facilitating seamless user connection and collaborative content generation using NextJS.
- Crafted 3 mongoose models to optimize data storage, establish schema relationships, and streamline data handling process.
- Devised and integrated 15+ user data management functionalities, harnessing the power of MongoDB and Mongoose.

#### Employee Manager Application | Angular, Spring Boot, MySQL

Aug. 2023

- Devised an employee manager application using Angular and Spring framework.
- Constructed Restful Web Services by creating and maintaining 5+ endpoints, ensuring seamless operations.
- Employed Spring Data JPAs 5+ inbuilt functions to seamlessly execute CRUD operations, ensuring efficient data management.
- Used JUnit 5 and Mockito for unit testing ensuring 85% code coverage.

# **StreamCrew** | Angular, Python, RabbitMQ, Redis

Jan. 2023

- Developed StreamCrew, an on-demand video streaming service that allows multiple users to stream videos together leveraging edge computing to provide a highly scalable, distributed architecture for the system.
- Implemented 5+ REST and socket-based APIs using Python and FastAPI on the backend.
- Established connections between client and server using WebSocket, used RabbitMQ to facilitate operations among multiple users and fetched and stored content in Redis cache to distribute it to users.
- Encoded streaming content using DASH protocol on AWS Elemental MediaConvert and stored it in an AWS S3 bucket.

# Nile - The Delivery Management Application | React, Flask, MySQL

Aug. 2022

- Fabricated a Full Stack Delivery Management application using React and Flask Library.
- Designed 10+ back-end REST APIs for the application using the Flask framework.
- Utilized Postman to perform comprehensive API testing to ensure 100% accuracy.