

# Bhushan Sanjay Khope

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## EDUCATION

### Master of Science in Computer Science

Indiana University - Bloomington

Jan 2022 - Dec 2023

Bloomington, USA

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

### Bachelor of Technology in Computer Engineering

Pune University

Aug 2016 - May 2020

Pune, India

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

## TECHNICAL SKILLS

**Languages & OS:** Java, C#, Python, JavaScript, NodeJS, SQL, HTML, CSS, Bootstrap, Typescript, C++; Windows, Linux

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

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

**Frameworks & Libraries:** Angular, React, Express, Spring-boot, Flask, Django, Angular Material, REST, Mongoose, Robot, Selenium, Jest, React/Angular Testing Library, Storybook

## PROFESSIONAL EXPERIENCE

### CNS - Indiana University

May 2022 - Present

Front End Developer [humanatlas.io](https://humanatlas.io) | [dashboard-ui](#) | [cde-ui](#)

Bloomington, USA

- Led the development of a responsive single page application for an NSF-Funded biomedical visualization project using **Angular and TypeScript**, resulting in a **47% increase** in user engagement.
- Created reusable code libraries, reducing development time for future projects by **35%** and improving the efficiency of the team.
- Developed and maintained interactive UI components using **Storybook**, ensuring robust component libraries and streamlined collaboration across development and design teams.
- Successfully designed and employed **32 reusable** and high-performance user interface components using **Angular Material**, resulting in a significant **38% reduction** in development time while enhancing the overall user experience.
- Successfully attained **93% code coverage** for Angular components by using **Jest, Angular Testing Library and Shallow Render**.
- Architected and managed a **CI/CD** pipeline that reduced software deployment times by **30%**.

### Accenture

Dec 2020 - Oct 2021

Associate Software Engineer

Pune, India

- Crafted a responsive web application using **React.js, JavaScript & NodeJS** leading to a **23% enhancement** in user satisfaction.
- Engineered 12 efficient and reusable functional components, resulting in an impressive **38% reduction** in code redundancy.
- Worked closely with UI/UX designers to translate design into code resulting in a **43% 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

**StreamCrew** | [Angular](#), [Docker](#), [Kubernetes](#), [WebSocket](#), [RabbitMQ](#), [FastAPI](#), [Redis](#), [AWS](#) ([Elemental MediaConvert](#), [S3](#))

- Designed a **distributed** Video-On-Demand streaming platform leveraging edge computing, allowing concurrent video streams.
- Developed a user-friendly interface with Angular and VideoJS, coupled with robust backend APIs using **Python and FastAPI**.
- Facilitated user interactions through **RabbitMQ** and optimized content delivery using **AWS Elemental MediaConvert and S3**, further enhancing with Redis caching.

**Foody** | [React](#), [Tailwind CSS](#), [React-Redux](#)

- 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.
- Engineered a highly efficient state management solution using **React Redux and Redux Toolkit**, resulting in a 40% faster data retrieval and a 25% reduction in app loading time.

**ChirpChat** | [React](#), [NextJS](#), [MongoDB](#), [Typescript](#), [Tailwind CSS](#)

- 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.

**Nile Delivery** | [React](#), [Flask](#), [MySQL](#)

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