# Parth Kansara

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#### WORK EXPERIENCE

#### Software Engineer Intern

August 2023 – April 2024

AICAN - https://aican.co.in

Remote

- Backend API Engineering: Architected scalable REST APIs with TypeScript and Node.js for a B2B SaaS platform, implementing robust error handling and optimizing queries, reducing job creation time by 30%.
- Data-driven UI Development: Created a customizable workflow using React and Redux for complex state management, incorporating user feedback to improve UX with visual cues, boosting feature adoption among clients.
- Performance Optimization: Implemented Next.js for critical services within the microservices architecture, enhancing load times and SEO, while prioritizing feature rollouts to cater to existing client needs efficiently.
- Real-Time Data Streaming: Rewrote the data telemetry module by implementing MQTT over WebSockets, which improved latency and reliability, enabled robust real-time monitoring, and cut failure response time by 50%.

#### Software Development Engineer

 $July\ 2021-July\ 2022$ 

Gallagher Re - https://ajg.com

Remote

- Full Stack Development: Enhanced iFM Online, a financial modeling web application using Core Java, J2EE, JSPs, Maven, and Spring, alongside CI/CD tools, following Scrum and Agile methodologies.
- Backend Security Enhancement: Refactored data parsing & sterilized data fields to avoid XSS injections, resulting in a 65% reduction in data-related errors and a 100% elimination of identified security vulnerabilities.
- UX Optimization: Streamlined navigation by fixing redirection issues, decreasing navigation-related support tickets by 30% and improved shorthand notation parsing to incorporate user comments, augmenting user experience.
- Interactive Data Visualization: Engineered a client-facing visualization using Chart.js to represent net benefits vs reinsurance costs with dynamic slope calculation for risk assessment, empowering data-driven business decisions.

### TECHNICAL SKILLS

Languages: Python, Java, JavaScript, TypeScript, C/C++, SQL (MySQL, PostgreSQL), NoSQL, bash, HTML, CSS Frameworks: React, Next.js, Node.js, Express, MongoDB, Django, Flask, FastAPI, SpringBoot, J2EE (JSPs, Servlets) Developer Tools: GitHub, Docker, Kubernetes, AWS (EC2, S3, Lambda), GCP, Prometheus, Grafana, Cursor, Copilot Libraries: Tensorflow, PyTorch, NLTK, OpenCV, numpy, pandas, SKLearn, XGBoost, dlib, matplotlib, Chart.js

#### Projects

listentothis, bro: Chrome Extension to Simplify Music Sharing [Live] | React, TypeScript February 2025

• Developed an extension for sharing songs directly into friends' Spotify playlists, streamlining music recommendation and reducing chat clutter. Live on Chrome Web Store, awaiting Spotify API's Extended Quota approval.

A Review of In-Memory Caching Systems: Scalability, Efficiency and Optimizations May 2023

• Researched Segcache and related in-memory caching systems, focusing on scalability, efficiency, and optimizations in key-value stores like Memcached and Redis.

The Evolution of Operating Systems: Literature Review of 19 Milestone Papers [Link] March 2023

• Studied OS design, system calls, schedulers, concurrency, memory allocation, file systems, virtualization, and testing

Telemedicine Platform for Remote Physical Therapy | Java, Spring, Docker, Kubernetes October 2022

• Implemented a full-stack application for remote physical therapy using **Spring** & **WebRTC** for real-time sessions and data management, containerized with **Docker** and orchestrated using local **Kubernetes** clusters via **Minikube**.

EduStack: A Smart e-Learning Platform | Python, Django REST framework, JavaScript, MySQL | March 2021

• Architected a full-stack e-learning platform using Django REST framework for API development and React for responsive frontend. Implemented data models in MySQL to support knowledge exchange and content management.

## **EDUCATION**

## Stony Brook University

Stony Brook, NY

Masters of Science in Computer Science (Thesis), CGPA: 3.9/4.0

May 2025

Coursework: Computer Networks, Operating Systems, Analysis of Algorithms, Computer Vision, Data Mining

# University of Mumbai - D. J. Sanghvi College of Engineering

Mumbai, India

Bachelors of Engineering in Information Technology, CGPA: 3.6/4.0

May 2021

Coursework: Data Structures and Algorithms, Database Management Systems, Software Engineering