Parth Kansara

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EDUCATION

Stony Brook University — Stony Brook, NY
Masters of Science in Computer Science (Thesis), CGPA: 3.9/4.0 — *August 2022 – May 2025*

University of Mumbai - D. J. Sanghvi College of Engineering — Mumbai, India
Bachelors of Engineering in Information Technology, CGPA: 3.6/4.0 — *August 2017 – May 2021*

WORK EXPERIENCE

Software Engineer Intern — August 2023 – April 2024
AICAN - https://aican.co.in — *Remote*

- **Data-driven UI Development**: Created a customizable job creation workflow using **TypeScript**, **React**, **Redux**, and **MongoDB**, incorporating user feedback to improve UX with visual cues, reducing job creation time by **30%**.
- **Performance Optimization**: Implemented **Next.js** for critical pages 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, contributing to the entire Software Development Life Cycle.
- **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), bash, HTML, CSS
Frameworks: React, Next.js, Node.js, Express, MongoDB, Django, Flask, FastAPI, SpringBoot, J2EE (JSPs, Servlets)
Developer Tools: GitHub, Docker, Kubernetes, Amazon Web Services, Google Cloud Platform, 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**.

Vision and Language Navigation using Minimal Voice Instructions [Paper] | *C++, Python, GCP* — May 2021
- Designed & implemented a navigation algorithm using YOLOv3 and a graph-based path planning module for the traversal of a virtual agent in a 3D space using the Matterport API, for my **Capstone Project**

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.