

Parth Kansara

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EDUCATION

Stony Brook University

Stony Brook, NY

Masters of Science in Computer Science (Thesis), CGPA: 3.83/4

August 2022 - May 2025

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

University of Mumbai

Mumbai, India

Bachelor of Engineering in Information Technology, CGPA: 8.99/10

August 2017 - May 2021

Coursework: Data Structures and Algorithms, Web Development, Software Engineering and Project Management

PROFESSIONAL EXPERIENCE

AICAN

Software Engineering Intern

August 2023 - April 2024

- Developed a customizable ERP SaaS platform using microservices to optimize production flows for MSMEs in the manufacturing sector, improving operational efficiency by **35%**, enabling quicker decision-making and execution
- Leveraged **Next.js**, **React**, **JavaScript**, **ES6**, **TypeScript**, **Node.js**, **Redux** and **MongoDB** database to develop critical features for manufacturing job creation and process planning adopted by over **25+ clients**
- Integrated the **WebSocket API** along with **MQTT protocol** for real-time communication of data across shop floor sensors and the SaaS platform, resulting in a **45%** reduction in failure response times

Arthur J. Gallagher & Co. (Gallagher Re)

Software Development Engineer

July 2021 - July 2022

- Worked as a **Java** full stack engineer on iFM Online, a web application for financial modeling, leveraging **Core Java**, **J2EE**, **JSPs**, **Maven** and **Spring**, along with **CI/CD tools**, contributing to the end-to-end Software Development Life Cycle
- Enhanced scenario analysis reliability by fixing data parsing on the backend & sterilized data fields to avoid XSS injections, resulting in a **65%** reduction in data-related errors and a **100%** elimination of identified security vulnerabilities
- Streamlined online navigation by fixing redirection issues, marking a **30%** decrease in navigation-related support tickets and improvised shorthand notation parsing on the front-end to incorporate user comments, augmenting user experience

TECHNICAL SKILLS

Programming Languages: Java, Python 3, JavaScript, C++, SQL, Bash

Web Development Frameworks: HTML5, CSS, Servlets, JSP, Struts 2.0, MVC, Spring, Express.js, React, Node.js, Django

Databases: MySQL, Microsoft SQL Server, NoSQL - MongoDB, AWS RDS

Version Control and Deployment: GitHub, GitLab, Docker, Amazon Web Services AWS, Google Cloud Platform

Concepts: Object oriented Programming, MVC, Agile Methodologies, REST APIs, Algorithms, Cloud Computing

PROJECTS

A Review on In-Memory Caching Systems: Scalability, Efficiency and Optimizations

May 2023

Stony Brook University. Mentor: Dongyoon Lee

- Exploring 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: A Comprehensive Review of 19 Milestone Papers

March 2023

Stony Brook University. Mentor: Dongyoon Lee

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

TelePhysio: Telemedicine Platform for Remote Physical Therapy

October 2022

Stony Brook University

[Java, Spring Framework, Docker, Kubernetes, Minikube, MySQL, WebRTC]

- Developed a **Java** based telemedicine application for remote physical therapy, containerized with **Docker** & orchestrated using local **Kubernetes** clusters via **Minikube**, with **Spring**, **WebRTC**, and **OOP** for real-time sessions and data management

EduStack: A Smart e-Learning Platform

March 2021

University of Mumbai

[Python 3, Django, Django REST framework, JavaScript, Node.js, React, MySQL]

- Engineered a **Python 3** full-stack web application, facilitating community-based education exchange via **REST APIs**

Vision and Language Navigation using Minimal Voice Instructions

March 2021

University of Mumbai

[C++, Python 3, JavaScript, HTML, GCP, Shell scripting]

- Designed 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

PR-FLT: Pulse Rate Measurement using Facial Landmark Tracking [Publication]

December 2020

University of Mumbai. Mentor: Purva Raut

[Python 3, PyTorch, OpenCV]

- Implemented low-cost non-invasive heart rate measurement by capturing head motions from facial video