

PANKAJ SHARMA

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EDUCATION

University of California, Riverside CA
Master's of Science in Computer Science

September 2024 - December 2025 (Tentative)

Birla Institute of Technology and Science, Pilani, KK Birla Goa Campus, India
Bachelor of Engineering (Honors), Electronics and Instrumentation

August 2015 - May 2019
GPA: 8.29 / 10

WORK EXPERIENCE

JP Morgan Chase & Co., Mumbai | Software Engineer II

July 2019 - September 2024

- Modernized legacy Mule flows to Spring Integration, increasing code maintainability and readability and remediating vulnerable packages like Spring Beans.
- Migrated PROD databases sizing 50 GB from Sybase ASE to MSSQL Server with no downtime.
- Modernized legacy applications to containerized workloads and migrated them from on-prem to Amazon Web Services(AWS EKS).
- Developed *Active Inventory Management* (AIM) Cash Optimization based on Signavio BDM that Cash Managers and Portfolio Managers use to actively manage residual cash on client accounts before the close of day.
- Created ReactJS UI for AIM that resulted in the investment of more than \$1.6 Billion of previously uninvested cash in 2022 alone. The total invested cash volume in 2022 via AIM was \$188 Billion.
- Updated the authentication and authorization setup across micro-services to use OAuth2.
- Enhanced the CI/CD pipelines to the latest industry standards using Harness.

The Humsafar Trust | Force for Good | JPMC, Mumbai | Full Stack Developer (Volunteer)

October 2019 - September 2020

- Created a cross-platform application for The Humsafar Trust - An NGO for LGBTQIA+ based on Ionic, Cordova, Spring Boot, and MySQL.
- Enhanced the app to support Social Feed for LGBTQ Events, adding these events to the calendar & setting reminders and SOS integration with calling and Navigation support that can be used in emergencies.
- Engineered the app to offer resources ranging from Legal, Medical, and Social support for the LGBTQIA+ community in India.

Retailio, Mumbai | Software Engineering Intern

January 2019 - June 2019

- Developed UI for Retailio's web panels for Retailer and Distributor and added functionality to the internal ADMIN panel.
- Implemented backend API to support ERP integration, MIS report generation, and synchronization of OMS payments.
- Worked on implementing batch jobs that helped reduce manual intervention in Payment Processing. Created UI in AngularJS where users can upload Payment Information in Excel and trigger batch jobs to process the same.

Forest Research Institute(FRI) | Forest Department | Government of Rajasthan, Jaipur | Research Intern

May 2017 - July 2017

- Reviewed 2 ongoing projects as an Intern - *Mukhya Mantri Jal Swavlambhan Abhiyan* (MJSA) and Rajasthan Forestry and Biodiversity Project - Phase II. I also visited a Self Help Group (SHG) under Community Mobilization and Joint Forest Management.
- Analyzed the R&D department and gauged how technologies like Quantum Geographic Information System (GIS) and Management Information System (MIS) are used in the projects.

PROJECTS

Application of Index Calculus Method for breaking Cryptosystems

- Researched the Index calculus method and then analyzed it thoroughly to solve the Discrete Logarithm Problem.
- Analyzed its application for breaking Cryptosystems and presented a report.

Optimal Controller Design

- Studied automobile compartment temperature and how it is constantly affected by environmental changes.
- Simulated control systems using MATLAB and presented a report on Optimal Controller Design to achieve the same.

SKILLS

Languages: Java, Groovy, Go, Kotlin, C, C++, Python, Javascript, TypeScript, SQL

Tools & Frameworks: Spring, React, Angular, NodeJS, Loopback, ExpressJS, AWS, Terraform, Kubernetes, Oracle, MSSQL Server, Sybase ASE, Docker, Kafka, Redis, Spinnaker, Harness, CockroachDB, Splunk, Grafana, MongoDB, Gremlin, AWS Snowflake

Relevant Coursework: Data Structures and Algorithms, Natural Language Processing, Artificial Intelligence, Machine Learning, Cryptography, Discrete Mathematics, Probability & Statistics, Computer Programming, Operating Systems

Certifications: AWS Certified Cloud Practitioner (CLF), Certificate in AI Search by AI Research - JPMC, Certificate in Networking Management by Nettech

AWARDS AND ACHIEVEMENTS

- 'Best Use of IT in Treasury and Capital Markets' by Informaconnect in December 2022
- Merit cum Need (MCN) Scholarship, BITS Pilani
- 'Circle Of Excellence Award' in the Above & Beyond Category at JPMC for best performer of the year in 2020.

EXTRACURRICULARS

- Competitive Coding and Programming, Catch the Flag contests, Exploring Steganography, AWS Deepracer, Quantitative Finance
- Developed a Mobile Application to track COVID-19 cases in India as a Side Project using Web Scrapping