CHIRAG CHOPRA

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EDUCATION

New York University, New York, USA   05/2025
MS, Computer Engineering (Merit Scholarship Recipient) — GPA: 4.0
Relevant Coursework: Big Data, Software Engineering, Cloud Systems, Network Security, Computer Vision

Chitkara University, Punjab, IN — GPA: 3.8   08/2019
BE, Computer Science
Relevant Coursework: Data Structures & Algorithms, C, Java, Python, Advanced DBMS, Data Mining, Computer Graphics

SKILLS

- **Languages:** Java, Python, JavaScript, SQL, R, TypeScript, HTML, CSS, C/C++, Bash
- **Frameworks:** Spring Boot, Flask, Django, Hibernate, React, Angular, Redux, Next.js, Node.js, JUnit, Mockito, TestNG
- **Tools:** REST APIs, SOAP, Microservices, Git, Elasticsearch, Grafana, AWS (S3, EC2, Lambda), Jira, GCP, Azure, Jenkins, CI/CD, Power BI, MySQL, PostgreSQL, MongoDB, Git, Docker, Kubernetes, Apache Kafka, Spark, Apache Airflow

EXPERIENCE

Hexion   Columbus, OH
Software Engineer Intern   05/2024 – 12/2024

- Engineered Code Generator utilizing Python, **Azure Data Factory**, **PySpark**, and **SQL**, reducing manual intervention by 50% and cutting data ingestion time by 30%, enabling real-time analysis and system efficiency.
- Implemented CI/CD pipeline in Azure DevOps for forecasting models using **docker**, automating build, test, and deployment to Azure Container Registry. Reduced deployment time by 30% using Azure Pipelines, Docker, and Python.
- Developed forecasting systems using **Python** (Pandas, NumPy, Scikit-learn), implementing models like ARIMA and SARIMAX to enhance demand prediction accuracy by 15%, optimizing resource allocation.

PhonePe   Bengaluru, India
Senior Software Engineer   10/2021 – 07/2023

- Architected core backend services using **Java**, **Spring Boot MVC**, adhering to Agile methodologies and engineering best practices to enhance software development life cycle (SDLC) efficiency for PhonePe's merchant onboarding module. Enabled seamless management of bulk data inflow and services for over 20 Million merchants across India.
- Improved critical business processes by optimizing the bank change flow logic, employing advanced problem-solving and troubleshooting techniques. Achieved a 20% increase in efficiency while enhancing customer focus and user experience during high-traffic periods through a custom cache warm-up solution.
- Established efficient data pipelines by integrating Apache Airflow and Apache Spark, demonstrating technical leadership and software design expertise. Automated the secure transfer of sensitive datasets among vendors, resulting in a 30% reduction in compliance processing time while adhering to coding standards and source control management.
- Designed a new microservice for bulk data processing, including the retrieval, parsing, redaction, encryption, and storage of sensitive CIBIL reports using **Aerospike** and **Spring Boot MVC**. Delivered a robust software architecture achieving 100% automation of the flow, showcasing design experience and programming language proficiency.

Paytm Money   Bengaluru, India
Software Development Engineer   11/2020 – 10/2021

- Spearheaded backend development for a stock trading app, improving performance and reducing CPU load by 20% through the integration of **Locust** and **AWS** load testing frameworks.
- Implemented **Spring Boot**-based RESTful APIs leveraging **Kubernetes** to reduce latency by 30% and ensuring scalability for real-time, high-volume transactions.

Evive Software Analytics   Bengaluru, India
Software Development Engineer   03/2019 – 11/2020

- Optimized data pipelines for ETL processing in healthcare systems using **Python**, **Cassandra**, **PostgreSQL**, **DynamoDB**, and **AWS Lambda**, increasing processing efficiency by 40%.
- Automated **SSO** testing processes, reducing manual work by 50%, and delivered in-depth reports using **Pandas** and **Matplotlib**, enabling data-driven decision-making for stakeholders.

PROJECTS

WavePulse: Real-time Political Content Analysis on Radio   GitHub
(Research Paper)   Website

- Built an interactive web platform utilizing **ReactJS** for the front end and Django for backend services, delivering real-time radio transcript data to over 1,000 users with minimal latency on Digital Ocean.
- Architected RESTful APIs in **Django** to manage and visualize, sentiment analysis on various candidates and parties, participating in the election, spread all over the 50 states in USA.
- Integrated **Google Gemini-1.5 Flash** for concise summarization of political discussions, developed an algorithm to dynamically, figure out the start and end point of a radio conversation, extracting key political points from 100% of the transcripts.

Book Social Network   GitHub

- Engineered a Book Social Network platform utilizing Spring Boot for backend services, PostgreSQL for efficient database management, JWT for secure user authentication and CRUD operations for book and user interaction management.
- Built a responsive frontend using Angular, featuring a sleek UI crafted with CSS and Bootstrap, enhancing user experience.