Nakul Manchanda

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Summary:

A **Senior Backend Cloud Engineer** experienced in multiple backend and frontend frameworks and technologies. Currently, working on designing, **scalable & automated data pipelines** to ingest & process large amount of data.

Technical Skills:

- **OOP Languages/Others:** JavaScript, Python, Go, Bash Scripting, Java, C#
- **REST Frameworks/Tools:** Express JS, Flask, Spring Boot, Postman, curl
- **Data Frameworks/Technologies:** Google Dataflow, Apache Beam, Composer, Airflow, BigQuery, Elasticsearch
- **Database:** RDBMS, MSSQL (T-SQL, SQL Server), MongoDB, NoSQL, Google Datastore
- **Cloud/Containerization:** GCP, AWS, Linux, Docker, Kubernetes, Pub/Sub, Cloud Tasks, Redis
- **CI/CD:** Terraform, GitHub Actions, Ansible, Jenkins, Shell Scripting
- **Proposal/Product Development:** Mural, Miro, Lucid Charts, MS PowerPoint, Mock-ups in Balsamiq

Certifications:

- Certified SAFE (**Scaled Agile Framework**) Practitioner, Scaled Agile Inc. – Feb 2021
- **Architectural Thinking**, IBM, April 2020
- Relational **Database Support for Data Warehouses**, Coursera, September 2018
- **Data Warehouse** Concepts, Design, and Data Integration, September 2018
- **Big Data Bootcamp**, WeCloudData, Toronto – Nov 2018 – Jan 2019
  - o Hands-on exposure to big data technologies available on AWS, Amazon EMR, Hadoop, Apache Spark, HIVE, PIG, Databricks, Apache Kafka, Glue, S3

Achievements:

- **Hackathon Winner - 1st prize out of 78 teams at TD ELEVATE Hackathon @MaRS**, September 2018. It was Toronto's largest technology festival. The event was sponsored by **TD Bank, City of Toronto, Universal Music Group, Deloitte**

Work Experience:

Senior Backend Engineer, TealBook, Toronto   *July 2021 – current*

- TealBook is a **Series B funded ProcureTech Startup** started in 2016. It solves master data management for the procurement department of huge companies. It has a huge catalog of millions of diverse suppliers. It helps organizations classify spending based on metrics like Diversity, ESG, etc.
- Help building Rest API using **NodeJS based ExpressJS & Python based Flask rest frameworks**
- Refactored & re-implemented multiple backend workflows for **performance, scalability & availability.**
- Improved **logging & log collection mechanism** of long-running processes to provide detailed feedback to the data ingestion team & support.
- Designed **Dataflow DAGs** to enable the internal ML team to deliver various **data quality projects** to production
- Lead adoption of Apache Beam utilizing Google Dataflow runner. 10x improvement over earlier processes. Its the most efficient way to make bulk updates to our **NoSQL datastore**
- Working on next generation data pipeline using **Airflow, Dataflow, Pub/Sub, Cloud Functions, Cloud Run, DBT & Postgres & BigQuery based solution.**
- Help support and develop **Elasticsearch** implementation which powers TealBook search functionality by indexing millions of suppliers & users.
- Being an experienced developer helps with **code reviews & mentoring.**

Staff Software Developer, IBM Canada   *Feb 2019 – July 2021*
- **Zowe** is a **Linux Foundation-OMP powered open-source project** - https://github.com/zowe
- Zowe enables microservice adoption on the mainframe by providing foundational backend & frontend software technologies. It includes API Gateway, Zowe Desktop, Zowe CLI & developer-friendly Zowe VSCode extension.
- **Full-stack engineer** on the team (Spring Java, NodeJS, C, React, Angular, Jenkins, Ansible, Docker, Shell Scripting)
- Provided guidance & support to beginners & early adopters on Zowe community slack
- Maintained most popular Get Started with Zowe Web Ui tutorial on IBM blog & backend trial system for Zowe enthusiasts.
- Developed **Zowe Trial Tutorial** to **increase adoption**. It received a rating of 60 NPR from users. The target audience was mainframe developers.
- Developed Zowe's first Docker Compose/Kubernetes POC to host all services off-mainframe.
- Developed an ansible-playbook to automate testing of Zowe's docker release and its compatibility with regular release

Lead NodeJS Backend Developer, Stealth Fintech Startup, Delhi, India   *Aug 2017-Aug 2018*
- Digitizing traditional P2P Group lending to automate scheduled transfers
- Modeled NoSQL MongoDB & Node.js based Express.js Rest API backend services.
- Implemented Integration with third party services such as - Payment Service API, Twilio SMS Service integration

Software Developer, Smartlinx Solutions, Manalapan, New Jersey   *Dec 2010 - Jan 2019*
- Smartlinx is a SAAS software company. SmartLinx's workforce management solution includes talent acquisition and onboarding, human resources, benefits and payroll, time & attendance, scheduling, and business analytics.
- Web Application Developer using Adobe Flex, developing end-to-end business workflows across its software suite.
- An expert database programmer on the team.
- Developed Report Distribution service by customizing behavior of SSRS with custom stored procedure & tables. It **improved report generation by a factor of 10** utilizing a hierarchical nature of data to reduce redundancy
- Developed multiple dashboards end-to-end for high-level metric overview by business users. Implement & modeled metric collection on the backend. Worked on improving the performance of metric queries. Developed UI using charting libraries.

Network Operation Engineer, Yahoo! Inc, Buffalo, New York   *June-Dec2010*
- Yahoo had a huge global network, storage & compute infrastructure. It needed 24*7 monitoring.
- Monitoring and remediating Yahoo's infrastructure using various monitoring tools like Netcool
- Help escalate issues to internal teams & external partners to meet availability SLA's

Teaching assistant (T.A.) for Computer System Organization, NYU   *Jan-May2010*
Under Prof. Allan Gottlieb, New York University, NY

Software Developer/Intern, Pacmid Technologies New York, NY   *May-Sep2009*
- Pacmid is a provider of trading technology services. The company provides direct market brokerage trading technologies and trading software products.
- As part of a **core C++ development team**, help port stock price feed backend service to UNIX platform. It was 30% percent more efficient compared to a similar feed on the Windows platform.
- Used open-source Common C++ library to build multi-threaded asynchronous network application

Education:
New York University, Master of Science, Computer Science, May 2010, New York, NY
Concentration: Operating Systems; Networks and Distributed Storage System
Indraprastha University, Bachelor of Technology, Computer Science, May 2008, Delhi, India