Neel

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Technical Skills

- **Technologies**: Azure, AWS, Linux server, Git, Rest API, Flask, ETL, Agile, Scrum, Docker

- **Programming Languages and Tools**: Python, R, Rust, Go, Scipy, Pandas, Numpy, Power BI

- **Database**: SQL, MongoDB, Spark, Elasticsearch

Experience

- **Senior Consultant** — Ottawa, ON
  EXL service(at Goldman Sachs) — *May 2022 – Current*
  - Designed and developed the cutting-edge credit card policy system using Python, Pyspark and FastAPI, working collaboratively to deliver a solution that meets business requirements.
  - Designed and developed in building framework and automating complex workflows using Python and py-unit for test automation which decreased the time by 60%.
  - Developed Fraud and Credit policies for credit card and mortgage systems using Python 3, Pyspark, JASON, FastAPI and SQL, which can handle up to 1 million transactions an hour.
  - Design large-scale "credit risk management system" with rest API using Python and FastAPI, which can handle 1000+ application requests per minute.
  - Evaluate potential tech stack based on new and existing system development and migration requirement.
  - Demonstrated an exceptional ability to manage and resolve multiple P-0 situations, leveraging excellent problem-solving and communication skills to deliver successful outcomes, which resulted in savings of at least 10M dollars for the companies involved.
  - Managing the technical aspects of the project while leading requirement-gathering activities and playing a central role in the interview process, ensuring that the team finds the most suitable candidates for the job.

- **Web System Architect** — Ottawa, ON
  Canopy Growth — *July 2021 – April 2022*
  - Successfully lead a web development team through the transformation of a waterfall development cycle into an agile one, implementing best practices and streamlining processes to improve efficiency and productivity of product development.
  - Developed a cutting-edge analysis tool to analyze all 42 company websites for WCAG issues using Python, Rest-API and SQL, resulting in enhanced user experience and compliance with accessibility standards.
  - Developed large scale microservice using Python, FastAPI, Docker and AWS, which can handle upto 100k request per hour.
  - Developed Virtualization of the Dev and Production environment of AEM using Docker, Python and AWS, for all 42 company websites, resulting in efficiency increase, scalability and cost savings of 5 Million USD a year.
  - Successfully designed and developed the information architecture for Canopy Growth Corporation's KPIs and APIs using Python 3.0, RestAPI and MongoDB, implementing best practices and innovative solutions to optimize data management and analysis.
  - Performed root cause analysis efforts for multiple infrastructure issues, utilizing a data-driven approach and leveraging industry best practices to deliver effective solutions that enhanced system stability and availability by up-to 99%.

- **Senior Python Developer** — Waterloo, ON
  Manulife — *August 2020 – July 2021*
  - Build, Maintain and Scale Azure cloud infrastructure with more than 1800+ servers includes Windows and Linux environment with 99.99% up-time.
  - Design and Develop automation script for maintaining and monitoring servers using Python, RestAPI and Azure.
  - Developed Real-time analytical dashboards using Power-BI for monitoring, patching and maintaining of the Azure environment.
  - Developed and Maintained Python scripts for distributed cloud environment of AXIS, Moody's computational software, which led to a reduction of cost by 5%.

- Worked closely with different stakeholders of the system to understand customer needs for efficient and timely system integration.
- Automated code deployment and CI/CD pipeline using Python, Docker and Git.
- Developed and automated testing of the Azure cloud environment, which led to a decrease in debugging time by 45 min and the number of bugs.

- **Python Developer**   Montreal, QC
  SITA   *September 2019 – June 2020*
  - Designed and developed a cutting-edge, real-time analytical system for airports, leveraging Python and reactive programming principles to integrate multiple hardware systems, including Lidar and Camera, and provide actionable insights for improved operational efficiency.
  - Successfully transformed a legacy system into a modern cloud-based microservice architecture, leveraging Azure and designing robust APIs for improved scalability, flexibility, and reliability.
  - Collaborated closely with key stakeholders to gather and analyze customer requirements for system integration, leveraging exceptional communication skills to ensure seamless alignment of objectives and priorities.
  - Lead the migration of a large-scale Python 2 codebase to Python 3, leveraging exceptional problem-solving skills and a deep understanding of the intricacies of both versions.
  - Successfully developed and integrated automated testing into the back-end system, resulting in a 30-minute reduction in testing time and significantly improving overall system quality.
  - Successfully created and managed a global data visualization operation for Azure products using Power BI, driving insights and enabling data-driven decision-making across the product-line.

- **Data Analysis Research Assistant / Python Developer**   Thunder bay, ON
  Lakehead University   *November 2017 – May 2019*
  - Successfully designed and implemented an end-to-end ETL pipeline and analytical features for a software product using Python, deployed on AWS infrastructure, resulting in enhanced data processing and analytics capabilities.
  - Worked with project team representatives to ensure that logical and physical data models were developed in line with corporate standards and guidelines.
  - Involved in the project analysis, design, and implementation & debugging.
  - Worked closely with different stakeholders of the system to understand their needs for this system integration.
  - Performed troubleshooting, fixed and deployed many Python bug fixes of the two main applications that were a main source of data for both Canada health department and internal department service team.
  - Designed and developed "Elasticsearch" on distributed server with 20 nodes which allow searching from 330M tweets/second.
  - Usage of advance features like pickle/unpickle in python for sharing the information across the applications.

- **Python developer**   Remote
  Datalog.ai   *January 2017 – August 2017*
  - Involved in the process of creating Use-case diagrams, Activity flow diagrams, Class diagrams and Object diagrams in the design phase and developed the Coding module.
  - Created Python and Bash tools to increase efficiency of call center application system and operations, data conversion scripts, REST, JSON, and CRUD scripts for API Integration.
  - Successfully implemented 5+ visualization dashboard for backend analysis of chatbot data: semantic analysis, topic extractor & other in AWS.
  - Used Unix/Linux OS based cloud for the deployment. Wrote scripts in Python for extracting data from HTML file using Python library Beautiful Soup.
  - Design and developed clustering algorithm for decision making based on chat.
  - Implement asynchronous API for chatbot analysis system, which is capable of handling thousands request per second.
  - Providing End-user Training and documentation for customer reporting services.

- **Python developer**   Godhra, GJ
  Panchamrut Dairy   *July 2014 – December 2016*
  - Working real time data analysis system for raw product cost and product transportation using SAP.
  - Detail report generation of different products sales and cost.
  - Perform data analytic on sales data for forecasting future growth of products.

- Owned the assigned reports, worked on them and updated the Report Development Scheduler for status on each report.
- Worked on daily basis with lead Data Warehouse developers to evaluate impact on current implementation, re-design of all ETL logic.
- Worked on exporting reports in multiple formats including MS Word, Excel, CSV and PDF.
- Responsible for making the report available for scheduling or viewing on demand.
- Forecasted sales pattern of ice-cream using time-series with 71% efficiency.

EDUCATION

- **Master of Science in Computer Science** — Thunder Bay, ON
  Lakehead University; GPA: 3.9/4.00 — *September 2017 – May 2019*

- **Master of Science in Information Technology** — Vadodara, India
  Gujarat Technology University; CGPA: 8.73/10 — *2014 – 2016*

- **Bachelor of Engineering in Computer Science** — Vadodara, India
  Gujarat Technology University; CGPA: 7.23/10 — *2010 – 2014*

FUNDING

- **Research grant**: 7000$/Yearly NSERC Discovery Grant.

PUBLICATION

- Neel Shah, Darryl L. Willick and Vijay Mago. "A framework for social media data analytics using Elasticsearch and Kibana.", Wireless Networks (2018): 1-9.
- Neel Shah, "The analysis of Canada's health through social media using machine learning.", knowledgecommons.lakeheadu.ca (2019)
- Neel Shah, G Srivastava, DW Savage, V Mago. "Assessing Canadians Health Activity and Nutritional Habits Through Social Media", Frontiers in Public Health (2019)