Harshil Patel

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EXPERIENCE

Senior Data Engineer and R&D Lead | Miix Analytics | *ON, Canada*   *July 2023 - Present*
- Led a team of analysts and engineers in implementing **Marketing Mix Models (MMMs)** for clients in consumer goods, home improvement, and wine industries, optimizing $50–$80 million annual marketing budgets.
- Directed and Engineered automation frameworks to streamline analytics workflows, enhancing scalability, reliability, and processing efficiency. This effort helped **reducing operational costs by 25%** and accelerating insight delivery across teams.
- Collaborated on Price and Promo models, achieving a 15% improvement in revenue efficiency for Canadian CPG and retail clients.
- Partnered with C-suite stakeholders to translate advanced data models into actionable business strategies.
- *Tech stack: Data Modeling, Python, SQL, BigQuery, Redis, AWS (S3, Lambda, Amplify), Google Looker Studio, GCS, Cloud Run*

Software Engineer | Spire Global Inc. | *ON, Canada*   *Nov 2022 - Feb 2023*
- Built high-performance **GraphQL APIs for maritime data extraction and satellite imagery processing**, enabling vessel detection with RF signal-based tracking.
- Integrated GIS and OGC Web Map data to enhance algorithm accuracy and scalability.
- *Tech stack: Python, GoLang, GraphQL, GIS, Image Processing*

Backend Software Developer | Haqdarshak | *MH, India*   *Jan 2021 - Oct 2021*
- Designed and deployed RESTful microservices serving 10,000+ daily active users.
- Engineered a scheduling backend that streamlined India's COVID vaccination system, **optimizing logistics for nationwide rollout.**
- Improved data workflows, boosting retrieval speeds by 40% while ensuring reliability and data integrity.
- *Tech stack: Python, Django, REST APIs, Data Engineering, Docker, Kubernetes, AWS*

Software Engineer | RecruitNet | *Hong Kong SAR*   *Jun 2020 - Dec 2020*
- Built scalable web scrapers with Python, Selenium, and BeautifulSoup to extract ATS data, increasing accessibility by 40%.
- Automated cron-job pipelines to integrate multiple data sources seamlessly into a recruitment platform.
- *Tech stack: Python, Java, Perl, Selenium, NLP, Data Analysis*

Software Developer Intern | Atliq Technologies | *GJ, India*   *Mar 2019 - July 2019*
- Contributed to a cross-platform video streaming and retail app using React and React Native.
- Designed backend integrations with SQL, Redis, and Firebase for scalable performance.
- *Tech stack: ReactJS, NodeJS, Firebase, SQL, Redis, PHP*

PROGRAMMING SKILLS

Data Engineering: Data Modeling, SQL, PostgreSQL, Redis, AWS (S3, EC2, Lambda), GCS, Airflow, Spark, Kafka
Programming: Python, GoLang, Java, C, C++, JavaScript, TypeScript, PHP
Frameworks/Tools: Django, FastAPI, REST, GraphQL, Docker, Cloud Run, Git, TensorFlow, Looker Studio, Tableau, Firebase

PROJECTS

Retail Optimization for Behavior Analysis & In-Store Navigation   *Python, Django, PostgreSQL, React, NLP, TensorFlow*
- Led design of an AI-driven system for demand forecasting, inventory optimization, and personalized recommendations.
- Integrated indoor navigation using a modified A* algorithm to optimize customer shopping paths.

Healthcare Management System (Freelance)   *Flask, React, Python, SQLite, AWS*
- Delivered a full-stack healthcare management solution with Flask microservices, JWT authentication, and React-Redux frontend.
- Built secure APIs for patient scheduling, health tracking, and hospital reporting within 20 days.

Technical Writing (medium.com/@harshil.99)   *Python, Tensorflow, NLP, CNN, Auto-Encoders*
- Neural Machine Translation (NMT) with Attention Mechanism - **17.1K views, 4.8K reads**
- Image Super-Resolution using CNNs and Auto-Encoders - **15.6K views, 7.5K reads**

EDUCATION

Trent University - *MSc. in Big Data Analytics (GPA: 4.0/4.0)*   *May 2021 - Sept 2022*
- Researched deep learning architectures (C-BiLSTM, BiLSTM) for predictive analytics. (bit.ly/cbiLSTM)   *ON, Canada*

Gujarat Technological University - *BE. in Computer Engineering (GPA: 3.9/4.0)*   *Aug 2016 - Sept 2020*
- Design Lead at Computer Society of India SB; Mentor, Coding & Hackathon Club.   *GJ, India*

AWARDS AND ACHIEVEMENTS

- Awarded **Employee of the Year (2023)** at Miix Analytics for leading high-impact data engineering and R&D projects.
- Named **2024 Global 30-Under-30** by Significant Insights for excellence in research, data, and insights leadership.