



Devansh Trivedi

Scholar Data Scientist

INTJ genius for hire! I am a compassionate, passion-driven Data Scientist with experience in NLP and ML. Demonstrated track record of successfully managing small to large projects from start to finish, with particular skill in prototyping state-of-the-art research for deploying from theory to production and excellent documentation skills. I have unrelenting rigour to conduct research and pioneer in synthesising actionable insights from datasets and communicating technical results in clear and accessible ways.

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TECHNICAL SKILLS

Data Science tools and libraries

Tensorflow 2.0, MXNet, Gluon, NumPy, Pandas, Colab, Jupyter, Scikit, MATLAB, OpenCV, Fast.AI, Tableau, Power BI

Programming languages

R, Python, JavaScript, SQL, Java, Rust, Elixir, Solidity, SAS

Coding best practices

Google Python Styling Guide, Doxygen documentation in comments

Rapid Prototyping and Development

Git, GitHub, OpenAPI 3.0, SwaggerHub, Visual Studio Code, Sublime Text 3, Tmux, IntelliJ IDEA, Vim, PyCharm, R Studio, Flask

Academic context

Quantum computing (QUBO), Descriptive and Inferential Statistics, Deep Learning, Generative Adversarial Networks (GAN), Reinforcement Learning

Digital Work Environment Tools

Jira, Confluence, Office 365, Cisco VPN, Google GSuite, IBM Sametime, Slack, Windows 10, MacOS, Linux

WORK EXPERIENCE

Data Scientist

ZF Group

06/2020 - Present

German Company that is into Self-Driving Cars

Projects

- Applied Theoretical Computer Science techniques for improving classical algorithms on NP-complete problem. Also used **Quantum computing** for transport cost reduction by logistics route optimization with FPGA simulation.
- Developed component for Data Lake Architecture that can run inference for **Time Series Forecasting** for Material Requirements Planning despite the data having Intermittent Demand.
- Deployed Multi-class Sentiment Analysis web service API with LDAP authentication and authorisation, interactive dashboard and Oracle database automation.
- Increased engagement by participating in cultural events, organising events and online challenges and volunteering in weekly meetings with HR.
- Commenced Digital Newsletter initiative with design, content, format and composition of the issues.
- Fault diagnosis and prediction for IoT Sensors in Devices Under Testbed (DUT).
- Live HR cost simulation with interactive parameters.
- Filled the roles of Data Analyst and Data Engineer for Sales forecasting with **Apache Spark** on **Databricks** platform.
- Knowledge base articles and documentation of server configuration.

WORK EXPERIENCE

Machine Learning Data Associate

Amazon - Alexa AI

12/2018 - 05/2020

Projects

- Modelled a **computer vision** instance segmentation architecture Mask Regional Convolutional Neural Network for 18 classes from in-house data that used a custom interpolation algorithm.
- Improved Speech-To-Text accuracy from 94% to 96%. Initiated prototyping Language Detection Engine for multi-class audio data classification. For this I took feedback from linguistic researchers and scientists. The spoken language identification would then go on to improve the **Natural Language Processing (NLP)** pipeline.
- Processed of 150,000 files in accordance with SLA and did overtime to compensate unexpected absences of team members. Increased data processing efficiency by 30%.
- My skip level manager was impressed with my enthusiasm and enlisted me for doing Proprietary Research for **AWS SageMaker** involving patents. The research conducted is now Intellectual Property of Amazon.
- Prevented confidential information leak by reporting it to my manager. Mentored new hires by knowledge transfer and team specific tooling from my experience.
- Managed to scored 100% in training test during induction, become safety ambassador by taking multiple trainings, and help in organising annual bash event. Learned from courses in the intranet portal such as Value Stream Mapping, FMEA, Quality Control tools. Attended trainings for Ergonomics and 'Yoga for desk or office'.

EDUCATION

AI Product Manager Nanodegree

Udacity

2021

Funded by ZF

Courses

- Performed practical bias mitigation in chest X-ray dataset model for bacterial and viral pneumonia detection with **AutoML** be leveraging Neural Architecture Search.
- Determined **business goals, success metrics, and performance metrics** for a product as Capstone project Legalese Lucidifier with mockup images made with **Plotly Dash** components in Python.
- Crafted proposal with instructions for medical image annotation required in the multi-class **computer vision** classification task.
- **Productization** from formatting a **business proposal** to measuring post-deployment impact.
- Studying state-of-the-art AI applications for business outcomes, impact and success.
- Paradigms of Privacy-first approaches for Compliance and Ethics, Model Evaluation and Cost-benefit analysis.
- Learned Transfer learning architectures, Active learning, Smart selection of Training Data.
- **Project management** with emphasis to machine architecture and organisation structure for scaling and monitoring.
- Approaches of Development Cycle such as **Scrum framework** for updating models with **A/B Testing** and Continuous Learning to remediate Model Staleness.
- Designing for longevity and launching a Dataset Annotation Job with **CML - Custom Markup Language**.

M. Tech. in Software Systems with specialisation in Data Analytics

BITS-Pilani

08/2020 - Present

Subjects

- Database Design and Applications
- Data Mining
- Advanced Statistical Techniques for Analysis
- Mathematical Foundations for Data Science
- Applied Machine Learning
- Software Architectures
- Data Structures and Algorithm Design
- Distributed Computing

EDUCATION

Baccalaureate in Computer Engineering

GTU (India's 16th best university) [↗](#)

2014 - 2018

Subjects

- Artificial Intelligence
- Cloud Infrastructure and Services
- Data Mining and Business Intelligence
- Theory of Computation
- Vector Calculus & Linear Algebra
- Database Management Systems
- Analysis and Design of Algorithms
- Computer Organization
- Advanced Engineering Mathematics
- Numerical and Statistical Methods for Software Engineering

LANGUAGES

French <i>Professional Working Proficiency</i>	Spanish <i>Limited Working Proficiency</i>	Hindi <i>Native or Bilingual Proficiency</i>	Gujarati <i>Native or Bilingual Proficiency</i>
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SOFT SKILLS

- Active Listening
- Leadership
- Product Development
- Professional Mannerism
- Formal Etiquettes
- Team building
- Business Communication
- Soft skills from Finishing School

PUBLICATIONS

Abstract

Research and Development on Manual Text Input Technologies and Keyboard Layout Optimisation

Devansh Trivedi

IRP IJSRT (Innovative Research Publication, International Journal Of Science Research and Technology)

July 11, 2015

International Conference on Information Technology and Computer Science.

Designed a custom layout to replace 150 years old Qwerty.

VOLUNTEERING, WELFARE AND CHARITY

Donations

Local slums and Online

Philanthropy is covered in detail at <https://DVNSH.com/bio>

Tasks/Achievements

- UNICEF - Supported underprivileged children
- Wikipedia - Wikimedia Foundation
- Distributed food, books, clothes in local slums

Rural Sanitation

STEPS TRUST (Goodera)

04/2019 - 04/2019

STEPS HOME, Korattur, Chennai

Volunteer through Corporate Social Responsibility

Contributions

- An interactive session with children in rural area to make them aware of importance of personal hygiene.

PERSONAL PROJECTS

CoViD-19 Prediction (04/2020 - 09/2020)

- I developed a predictive SIR model for COVID-19 spread for an Indian state. I solved a number of sets of **differential equations** and plot the curves. I used Euler's method by hand and with computational programs. I also applied the Runge-Kutta method in **R language**. I ran inferences that show the spread of infection using that mathematical model.

Founded IoT Startup - Fqwerty Tech Pvt. Ltd. (2016 - 2018)

- Working hardware prototype of wireless wearable device "Gauntlet" as a universal controller.
- Mentored by Infosys cofounder Gopalakrishnan at EDII (Entrepreneurship Development Institute of India) - Gandhinagar.
- Selected by Startup Village (world's first digital incubator and India's best startup incubator), beating 1,946 teams in the country!

Custom Operation Systems (2014 - 2016)

- Ported Android Custom ROM
- Remastered Kali, Ubuntu distros
- Installed OpenWRT in Router
- Multiboot environment

Full stack JavaScript implementation

- Node.js with MySQL (using knex middleware)

Assembled my own Workstation PC Rig

- Build costed 2600 CAD
- Imported Nixeus monitor from New Jersey
- Arch Linux OS set up from scratch

Live context detection (09/2018 - 12/2018)

- This project was [commended](#) by **Andrew Trask**
- Flubber, a #100DaysOfMLcode challenge used AI for contextual music recommendations based on environment <https://sync.dvnsh.com/mldaylog>
- Learned graph database and Cypher language

Android tablet controlled Drone (Quadrocopter) (09/2017 - 09/2017)

- <https://rebrand.ly/mydrone>

ACHIEVEMENTS

Code qualified by IBM for Watson

My [pull request](#) for IBM Watson Developer Cloud Python SDK authentication was accepted and merged.

Winner of national level Cloud Computing competition

IIT-Madras: I proved myself the best in the country

\$1,000 Research grant sponsored by Google Cloud

For 'Climate Action', one of the goals of United Nations Sustainable Development Goal (SDG). Research pertaining "Keeping the planet habitable in Anthropocene using AI augmentation for Climate related government decisions"

\$1,000 Scholarship from Consensus Blockchain Developer Program

I learned the hardest coding language there is, Solidity and make smart contracts on Blockchain for Bank, Supply chain and a Dapp (Distributed App) multiplayer Tic-Tac-Toe.

Github Arctic Code Vault badge

My contributions to world's most depended-on open-source projects are in the Arctic World Archive for safekeeping.

Featured developer and community member of Neo4j Graph Database Platform

<https://r.neo4j.com/2CHL5FR>

Fellowship at School Of AI

Under Siraj Raval, a thought leader in the Machine Learning and Artificial Intelligence space.

ORGANIZATIONS

Dean of School Of AI (08/2018 - Present)

Taught 50+ students in Rajkot chapter (Gujarat) for the international non-profit. Collaborating with 400+ cities all over the world.

Indian Society for Technical Education (ISTE) (2014 - 2018)

Attended workshops and events in Technology festivals at different colleges as a member of this organization.

Maker Space

Multi-disciplinary activities with engineering students

Started Foreign Language Club (FLC)

CERTIFICATES

University Certificate in AI & ML (2020)

Academic [ePortfolio](#) from *The University of Texas at Austin*

Minor Degree in Technological Entrepreneurship

Indian Institute of Management (IIM)

Social Media for Leadership (07/2019)

Lynda.com

FreeCodeCamp (328 Challenges, 4 Projects)

Managing Python Packages and Virtual Environments (04/2020 - 05/2020)

Pluralsight

Data Science Foundations: Fundamentals (07/2019)

Lynda.com

Version Control for Everyone (07/2019)

Lynda.com

CAUSES

Curing Presbyopia

Digital Wellness

Animal Welfare

Climate Change

Fairness in AI

Accessibility

INTERESTS

Watching Documentaries

Genetics and Genomics

Automation

Logic puzzles

Blogging

Swimming

Soccer

Ethics

Privacy

Psychology

Governance

HONOR AWARDS

Selected in National Defence Academy (2014)

Indian Armed Forces

- I cleared the national level aptitude test.
- I was sent the Call Letter twice.

100% Attendance for Consecutive Months (2019)

Amazon

- My photo was featured in intranet TV and email list

Winner - Debate competition (06/2016)

Atmiya Institute of Technology and Sciences

- University-based Team Learning for Innovative Engineers Program

CONFERENCES & COURSES

Ethical Hacking Integrated Level 1.0 & 2.0

Nirma University - Tech Festival

Delievered Keynote speech

SAL University Technical Campus

- About state of Startup India mission and guidance for Startups

Job Ready Module (01/2018 - 03/2019)

MyAura Finishing School -

Patent Clinics

University sponsored sessions

- For awareness of IPR (Intellectual Property Rights)

Ai4 (08/2020)

Conference

- The fight for transparency and fairness in AI - Travis Nixon (National director of data science, Microsoft)
- A comprehensive guide to MLOps: Planning for the new normal in the time of CoViD - Diego Oppenheimer (CEO, Algorithmia)