Aditya Kuchhal

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# PROFESSIONAL SUMMARY

Python Developer and Data Analyst with expertise in AI, Machine Learning, Model Validation, and Risk Management. Proficient in Python, SQL, NumPy, Pandas, and SciPy, with experience in statistical testing, data visualization, and automation. Skilled in Flask, Django, and Streamlit for web applications and familiar with Git, Bitbucket, and scientific computing. Strong problem-solving and critical-thinking skills, with a track record of optimizing workflows, ensuring data integrity, and driving innovation. Adept at designing dashboards, business insights, and decision support systems for continuous improvement and optimization in business processes.

# SKILLS

**Languages:** Python, SQL, Java, C/C++, R

**Data Visualization and Reporting:** Excel, Matplotlib, Seaborn, Alteryx, Power BI, Tableau, Illustration

**Machine Learning:** NumPy, Pandas, Natural Language Processing, TensorFlow, PyTorch, Model Validation

**Data Concepts:** Data Cleaning, Data Extraction, Data Processing, Data Visualization, Exploratory Data Analysis, Data Analytics, Data Flow

**Developer Tools:** Git, GitHub, Flask, Django, Streamlit

**Soft Skills:** Problem Solving, Organized, Time Management, Team Management, Technical Design, Group Processes, Project Documentation, Report Generation, Storytelling, Business Case

# EDUCATION

## George Brown College - Toronto, ON | PGDM

* Applied A.I. Solutions Development, Expected in 09/2025
* Majors: Machine Learning | Deep Learning | Python | Data Analysis | Big Data

## York University - Toronto, ON | PGDM

* Back-End and Blockchain Development, 05/2024
* Majors: Blockchain | Solidity | Ethereum | DevOps | Relational Blockchain

## Amity University - Noida, India | Bachelor of Technology

* Computer Science and Engineering, 07/2023
* Majors: DSA | DBMS | Programming Languages
* Minors: Vocational and Communicational Skills

# WORK EXPERIENCE

**Intern Salesforce Python Developer** | 06/2022 to 08/2022 | **Genpact**

* Led operational enhancements for a travel company by implementing third-party integrations and developing reporting tools, reducing processing time by 30% and improving system efficiency. Optimized and maintained existing systems using Python, enhancing stability and reducing downtime by 25%.
* Developed Salesforce ticketing system modules with Python and Data Structures & Algorithms (DSA), automating 80% of manual processes and cutting resolution time by 40%, leading to improved customer satisfaction and operational efficiency.
* Managed client applications with SOAP and REST web services in Python, boosting system performance by 35% and enhancing user experience by ensuring faster response times and seamless interactions.

**Python Developer Intern** | 03/2022 to 05/2022 | **AgroCep**

* Application Development using Python for an AI-based aggrotech startup, leveraging Data Structures and Algorithms (DSA) to enhance processing speed by 40% and optimize resource utilization.
* Designed and implemented a distributed Python platform architecture, improving system scalability and reducing latency by 35% through efficient load balancing. Conducted rigorous testing to ensure robustness and reliability.
* Integrated the Ionic framework for mobile app development and deployed scalable solutions on AWS, reducing infrastructure costs by 25% while improving performance.

# PERSONAL/ACADEMIC PROJECTS

* **Degraded Script Identification***Python, OpenCV, CNN, SVM*

Developed an ML-based OCR system to classify degraded Gurmukhi and Gujarati scripts using CNN & SVM. Implemented image pre-processing, feature extraction (HOG, LBP, Edge Detection), and segmentation techniques to enhance text recognition. Conducted comparative analysis of classifiers, improving accuracy in noisy document images. Published findings in IJCDS, University of Bahrain.

* **Webcam Motion Detector***Python, OpenCV, MATLAB*

Python-based project focused on advanced area reconnaissance. This system can detect both body and object motion within a designated area. It generates precise Bokeh Graphs that visualize the duration during which body motion is detected, providing valuable insights for surveillance and analysis purposes.

* **Interactive HR Dashboard***Tableau, Python (Faker, Pandas), Custom Dataset*

Developed a fully interactive HR dashboard in Tableau using a custom dataset generated with Python (Faker, Pandas). This project provides clear visualizations of workforce metrics such as hires, terminations, performance, and salary trends. With dynamic filters and drill-down features, it offers actionable insights for strategic HR decision-making.

* **Distance Detection System***Python, Arduino, Robotics*

Awarded the prestigious 1st Prize in the renowned Tinker Fest Competition for my Python-based project built with Arduino UNO and Robotics. This innovation mimics car sensors, effectively sensing and measuring the distance between the device and its environment.

# CERTIFICATIONS

* Google Data Analysis with R Programming – Coursera
* R (Basic) – HackerRank
* IBM Python for Data Science – Cognitive Class
* The Nature of Data and Relational Database Design – Coursera
* Data Warehousing and Business Intelligence – Coursera
* Pattern Discovery in Data Mining – Coursera
* Text Mining and Analytics - Coursera
* The Python Mega Course – Udemy
* Mastering Data Structures and Algorithms using C and C++ – Udemy
* Data Structures and Algorithms Essentials using C++ - Udemy
* The Complete Flutter Development Bootcamp with Dart - Udemy