

# Jay Patel

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## EXPERIENCE

### Data Science and Business Analytics Intern, The Sparks Foundation

Jan 2022 - Jul 2022

- Orchestrated data cleaning for 100,000+ records daily using Python and SQL, improving data accuracy by 20%.
- Analyzed 500,000+ data points, conducting comprehensive exploratory analysis and model validation using Pandas and Scikit-learn, enhancing model accuracy by 15%.
- Streamlined data preprocessing and model refinement processes, achieving a 35% increase in efficiency and reducing project timelines by 15%.

### Backend Developer Intern, Roxon Technologies

Jan 2021 - Jul 2021

- Spearheaded database optimization, implementing CI/CD pipelines with Jenkins, elevating website search speed by 50%, resulting in a smoother user experience.
- Maintained RESTful APIs, integrating CI/CD practices, leading to a 25% increase in property listings.
- Collaborated with the front-end team using Agile methodologies, refining user experience and increasing website traffic by 20%.

## PROJECTS

### Image Processing Based Emotion Recognition (Python, Neural Network)

- Enhanced facial emotion recognition system achieving 81% accuracy in real-time detection.
- Implemented OpenCV techniques for facial emotion detection, increasing user engagement by 28%.

### AI Game - Atari (Python, Gymnasium)

- Developed autonomous agent using Q-Learning for robust gameplay in Atari Pong Version 5.
- Spearheaded Gymnasium integration, achieving a 50% increase in strategic gameplay effectiveness.

### AI Q&A Chatbot (Python, LangChain, Google PaLM)

- Designed and implemented an AI-powered Q&A chatbot utilizing LangChain's CSV Loader class for dataset handling.
- Leveraged Google PaLM LLM to enhance NLP functions, providing precise, context-aware answers and increasing user engagement by 25% and satisfaction ratings by 20%.

### Invoice Webapp (Python Django, SQL)

- Streamlined billing workflows, resulting in a 30% acceleration in processing times.
- Integrated secure database solution, leading to 40% faster information retrieval.

## EDUCATION

**Master of Science, Computer Science**  
University of Texas at Arlington

Aug 2022 - May 2024  
GPA: 3.33 / 4.00

**Bachelor of Engineering, Computer Engineering**  
LDRP Institute of Technology Research

Jun 2018 - Apr 2022

GPA: 8.51 / 10

## SKILLS

**Programming Languages and Framework:** Python, Java, C++, C, Dart, Javascript, SQL, HTML, CSS, Javascript, Flutter.

**Integrated Development Environments (IDEs):** PyCharm, VSCode, Eclipse, IntelliJ, Android Studio

**Programming Tools:** Bootstrap, DevC++, TurboC++, Google Colab, Jupyter Notebook

**Version Control:** Git, GitHub

**Web Framework and API:** Django, FastAPI, RestAPI, Langchain, Google PaLM, FAISS, Spring, Spring Boot, JSP, Servlet, Microservices, Multithreading and Concurrency

**Machine Learning and Data Science:** TensorFlow, PyTorch, Sci-kit Learn

**Big Data Technologies:** Hadoop

**Containerization:** Docker

**Certificates:** Crash Course on Python - Google, What is Data Science? - IBM