

# Harsh Shah

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## EDUCATION

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### **BITS Pilani**

*Bachelor of Engineering in Electrical and Electronics, Master of Science in Economics*

Aug. 2017 – Present

*Pilani, Rajasthan*

## TECHNICAL SKILLS

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**Languages:** Python, C, C++, MySQL, Java

**Developer Tools:** Git, Docker, VS Code, Jupyter, PyCharm, Eclipse, Anaconda

**Libraries and Frameworks:** PyTorch, Pandas, NumPy, Keras, TensorFlow, NLTK, Transformers, Spacy, scikit-learn

## RELEVANT COURSES

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Neural Networks and Fuzzy Logic, Object Oriented Programming, Operating Systems, Computer Programming, Probability and Statistics, Linear Algebra, Applied Econometrics, Derivatives and Risk Management

## EXPERIENCE

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### **Head Teaching Assistant, Neural Networks and Fuzzy Logic**

*BITS Pilani*

January 2021 – May 2021

*Pilani, Rajasthan*

- Conduct workshops to familiarise students with NumPy, Pandas, PyTorch and Tensorflow
- Design and evaluate Neural Networks based Python assignments to test their practical knowledge

### **Natural Language Processing Intern**

*FlexiEle*

May 2020 – July 2020

*Gurgaon, Haryana*

- Developed a Resume information extractor using **NLTK** and **OpenCV** and stored data in JSON format
- Built and deployed a **RASA** based chatbot for tasks like leave management and stress assesment
- Secured the chatbot with a custom HTTP input channel having JWT authentication to allow authorized access

### **Data Science Intern**

*Belief Systems*

May 2019 – July 2019

*Chennai, Tamil Nadu*

- Wrote python scripts to scrape data using BeautifulSoup and Selenium to create database for offline use
- Cleaned and visualized client data using dashboards in Power BI to deliver actionable insights
- Built a people counter app using OpenCV to keep track of people inside the shop using video from CCTV

## PROJECTS

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### **ML for Option Pricing** | *Python, Keras, Pandas, NumPy* | [GitHub Link](#)

Jan. 2021 – Present

- Explore the effectiveness of different Neural Network architectures for the task of Option Pricing
- Compare the results of ML based techniques with traditional models like the Black-Scholes and the Heston model

### **Attention based LSTM** | *Python, PyTorch, NumPy* | [GitHub Link](#)

Nov. 2020 – Dec. 2020

- Implemented the paper *Attention-based LSTM for Aspect-level sentiment classification* on SemEval 2014 dataset
- Reproduced the results from the paper and additionally visualized attention weights for different aspects

### **YouTubeNLP** | *Python, Docker, Flask, Gensim, Transformers* | [GitHub Link](#)

May 2020 – Oct. 2020

- Worked on a web application which provided insights about comments and transcript of YouTube videos
- Used different transformer based models like **BERT** and **GPT** for tasks like NER and Emotion Analysis

### **Fashion Intelligence System** | *Python, PyTorch, React* | [GitHub Link](#)

July 2020 – Aug. 2020

- Developed a Fashion Intelligence System which scrapes and ranks products from e-commerce websites
- Products were ranked based on similarity between image embeddings of scraped and trending products
- Code was written in a modular format to facilitate scaling across new products and websites

## COMPETITIONS

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### **Flipkart GRiD 2.0**

*Finished in the Top 1.2 percentile out of 22,000+ participants in a Software Development competition*

July 2020