

# Shikhar Sharma

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## EDUCATION

### Carnegie Mellon University

Pittsburgh, Pennsylvania

M.S. ELECTRICAL AND COMPUTER ENGINEERING WITH AI/ML SPECIALIZATION

Dec 2023

Current Coursework: Intro to ML, Applied ML, Natural Language Processing

### Birla Institute of Technology and Science (BITS) - Pilani

Pilani, India

B.E. (HONOURS) IN ELECTRONICS AND COMMUNICATION WITH MINOR IN DATA SCIENCE

July 2019

Relevant Coursework: Data Structures and Algorithms, Object Oriented Programming, Foundation of Data Science, Information Retrieval, Machine Learning, Artificial Intelligence, Discrete Structures for Computer Science

GPA: 9.56/10 Department Rank: 2nd

## PROJECTS

### Evaluating Student Writing

Python

CARNEGIE MELLON UNIVERSITY

March 2022 - May 2022

- Designing and implementing an open source algorithm to help struggling students of underprivileged communities improve in writing using pre-trained language models like BERT with fine tuning.

### Question Answering System

Python

CARNEGIE MELLON UNIVERSITY

March 2022 - May 2022

- Creating a question and answering system to generate questions from a given Wikipedia text and fetch answers for a given set of questions.

### Aspect Based Sentiment Analysis (ABSA)

Python

BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE (BITS) - PILANI

January 2018 - December 2018

- Developed an ML project for Aspect Based Sentiment Analysis to classify product reviews as positive, negative, or neutral.
- Employed Conditional Random Field in the model for aspect term extraction and Maximum Entropy Classifier for category detection.
- Compared the performance of CNN, Gated-RNN, LSTM, and Bi-LSTM algorithms for the ABSA task.

### Separation of Duty in Temporal RBAC

Java

BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE (BITS) - PILANI

July 2018 - December 2018

- Built a role miner with Separation Of Duty (SOD) restrictions in the presence of time constraints under Dr. Barsha Mitra.
- Modified the traditional algorithm of Minimum Biclique Cover so that the roles generated were time bound and in accordance with the SOD restrictions.

## SKILLS

Programming Languages: Python, Java, Swift, C

## EXPERIENCE

### PayPal

Bangalore, India

SOFTWARE DEVELOPMENT ENGINEER

July 2019 - December 2021

- Revamped the reporting and legal agreements code for a legacy code migration project aimed at deprecating 15 year old technical infrastructure in use within the PayPal Business iOS App. The migration aimed at reducing bugs by **30%** and app size by **20%**.
- Designed and developed a new SDK to handle newly on-boarded users with minimal information accounts.
- Updated the PayPal iOS app activities to make it compliant to China rules and regulations with respect to data storage within the country's geographical location.
- Led the initiative to launch the Invoicing experience internationally, resulting in an increase in the App downloads by about **60%**.
- Served as the **Technical Lead** for developing the servicing features for the PayPal Debit Cards for US Merchants in the PayPal Business Mobile Application. The feature benefited about **8 million** merchants by the end of 3rd quarter '21.
- Released the activation flow for PayPal Debit Cards for US Merchants in the PayPal Business Mobile Application. This flow was utilised by more than **30k** merchants to activate their new debit cards.
- Created a "NEW" badge for the PayPal Business Mobile Application to be used alongside rows in menus to draw user attention to new features. The user traffic improved by **25%** since the addition of this badge.

### Nvidia

Bangalore, India

SOFTWARE ENGINEERING INTERN

January 2019 - June 2019

- Generated a data model in **python** for the security component of Nvidia DRIVE, the **autonomous vehicle development platform** by Nvidia.
- Developed a tool to utilize the data model, to output various configuration & header files, interface handles, and reports.
- Achieved a reduction in the development time by around **20%** and the tool was the first in-house enhanced version of a 3rd party licensed tool previously purchased by the team for **\$800** per annum.

## AWARDS AND ACHIEVEMENTS

- Received Merit Scholarship at BITS - Pilani for outstanding academic performance (**top 2%** amongst 700+ students).