

# AMEY GUPTA

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## Education

**Birla Institute of Technology and Science, Pilani Campus**  
*Bachelor of Engineering (Honours.) in Electronics and Instrumentation*

**2019 – 2023 (Expected)**  
*Pilani, Rajasthan*

## Experience

**William O'Neil India**

*Quantitative Trader Intern*

**January 2023 – Present**

*Bangalore, Karnataka*

- Responsible for researching and developing quantitative trading strategies based on various technical indicators
- Developing, testing and validating trading algorithms and making them investment ready

**Microsoft India**

*Software Engineer Intern*

**May 2022 – July 2022**

*Hyderabad, Telengana*

- Worked as a part of the Bing Travel Destinations Team to collect high quality data on travel destinations to be displayed on the Bing Travel Hub to improve User Experience and Utility.
- Built HitApps for the UHRS Crowd-Sourcing Platform to collect data about *Destination Type*, *Best Time to Visit* and *Ideal Stay Duration* for about 50K destinations and parsed the obtained results into production ready data filtering out spam and low quality responses
- Achieved a coverage of 98.76% with a precision of 100% for top destinations and 90% for tailing destinations

**CSIR-CEERI**

*Research Intern*

**May 2021 – July 2021**

*Chennai, Tamil Nadu*

- Worked at the Embedded Vision Machine Learning Lab under Suriya Prakash J, researching on and developing various texture classifiers using Gabor Filters and Wavelet Transforms for Feature Extraction in Image Classification
- Used feature vectors extracted using Gabor Filters and Wavelet Transforms with classical machine learning models and CNNs
- Presented our research paper titled "*Comparative Review of Machine Learning and Deep Learning Techniques for Texture Classification*" at *International Conference on Artificial Intelligence Techniques for Electrical Engineering Systems, AITEES 2022*. Published in "*Atlantis Highlights in Intelligent Systems (Volume 3)*" by Springer Publications

## Projects and Publications

**Research Paper** | *Comparative Review of Machine Learning and Deep Learning Techniques for Texture Classification*   **2022**

- Researched on improving machine learning and deep learning texture classifiers by implementing a gabor filter and discrete wavelet transform based feature extractor
- Keywords** : Machine Learning, Deep Learning, Convolutional Neural Networks, Image Processing, Texture Classification, Gabor Filter

**Video Calling Web Application** | *EngageMeet*

**2021**

- A fully functional multi user video calling application with room based video calling, screensharing, whiteboard and chatting
- Used WebRTC and socket.io libraries to implement the peer to peer connections to create and catch events
- Tools/Technologies** : Node JS, WebRTC, Socket IO, UUID, Express, HTML, CSS

**Task Manager REST API** | *Tasker API*

**2020**

- Built a REST API for a Task Manager Application with all CRUD operations supported using Node JS, Express JS and various other Javascript Libraries along with MongoDB as the database
- A fully functional API with various routes for adding, deleting, updating and listing tasks and also routes for the user to update his/her information and to change their credentials and implemented their programs
- Tools/Technologies** : Node JS, MongoDB, Postman, Express, JSON Web Token Authorization, bcrypt.js, multer.js

## Relevant Coursework

Computer Programming, Data Structures and Algorithms, Object Oriented Programming, Operating Systems, Internet of Things, Combinatorial Mathematics, Probability and Statistics, Microprocessors and Interfacing