Niel Parekh (he/him)

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EDUCATION

University of Massachusetts Amherst September 2022 - May 2024

Masters of Science, Computer Science

Coursework : Advanced Algorithms, Machine Learning, and Systems for Data Science

SSN College of Engineering, Chennai August 2018 - June 2022

Bachelor of Engineering, Computer Science *CGPA : 3.6*

Coursework : Artificial Intelligence, Deep Learning, Data Structures, Probability & Statistics, Operating systems, Database management systems, Python & R in Data Science, Internet Programming, Social Network analysis, AWS fundamentals, Software Engineering

TECHNICAL SKILLS

Languages: Python, C, C++, Java, SQL, HTML, CSS

Software libraries and tools: NumPy, Pandas, Keras, Boto3, Elasticsearch, LaTeX, Flask ,Twillio, Flask

WORK EXPERIENCE

Prosimo Mountain View, California

Data Science Intern Jun 2020– August 2020

- Analyzed data using Kibana with data injected into ElasticSearch to create intuitive dashboards aiding in cloud orchestration.
- Developed python scripts that accessed AWS S3 cloud storage to extract data and conceptualize it.

LatentView Analytics Chennai, India

Intern May 2021 – July 2021

- Deployed an automated chatbot made with several Azure services like QnA maker for pre-processing the files.
- Integrated the front-end made using React with mock API's, created using Flask, which were tested using POSTMAN.

University of Cyprus Nicosia, Cyprus

Research Intern June 2021 - Nov 2021

- Received funding from European Union's Horizon 2020 research and innovation programme to identify DDoS attacks made on Android devices.
- Researched several machine learning algorithms including LBGM, Random Forest, XG Boost and Ada Boost.
- Tested the models on a dataset generated using Kali Linux and Termux, emulating the slowloris attack..

PUBLICATIONS

Face mask detection using SSDNET and lightweight custom CNN June 2021

ICICNIS 2021 - Elsevier SSRN: Paper

Detection of DDoS attacks in D2D Communication Environment Using Machine Learning and Cloud Computing In Review

Computer Communications Journal

Malaria Cell Detection using Depthwise Separable CNN In Review

Journal of Computing Science and Engineering

PROJECTS

Identifying Vulnerabilities in Cloud Platforms

- Predicted resource vulnerabilities on cloud platforms like AWS and GCP.

Passport Application Management System

- Integrated the Flask and SQL back-end with the front-end made using HTML and CSS.

Flight Fare Prediction

- Modeled a random forest algorithm to predict domestic flight fares in India.
- Designed the front-end using HTML and CSS.

Automated Home Security System

- Designed a system that captured the photo of anyone entering a house using a raspberry pi camera.
- Ran facial recognition algorithms to identify the photo or alert home owners via SMS using the Twillio API.

LEADERSHIP / COMMUNITY SERVICE

- **Collegiate :** Event Head at SSN Invente'2021, Under Secretary-General at SSNMUN'2022
- **Neighborhood Volunteer**: Volunteered in tree plantation drives and blood donation camps; relief work during the Chennai floods
- **Spirituality**: Completed a 4 year Spiritual Touch programme by Shrimad Rajchandra Mission Dharampur