

Neel J. Gandhi

COMPUTER SCIENTIST(SPECIALIZATION IN HEALTHCARE) · USA

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Education

Dartmouth College

Hanover, NH

MASTER OF SCIENCE IN COMPUTER SCIENCE

2022-Present

- Ivy League graduate focused on applying technical and management skills to leverage healthcare through automation.

School of Technology, Pandit Deendayal Energy University (formerly PDU) [Transcript]

Gandhinagar, Gujarat

BACHELOR OF TECHNOLOGY IN INFORMATION AND COMMUNICATION TECHNOLOGY -(CGPA - 9.32/10.0)

July 2018 - May 2022

- Ranked among **top 5% percent** students in the batch of ICT with experiential knowledge in computer science.

Internship

IIT Gandhinagar

Gandhinagar, India

RESEARCH INTERN Supervisor-Dr.Nihar Ranjan Mohapatra [REPORT][CERTIFICATE]

8 Weeks - 2021

- Developed Deep Neural Network (DNN) based framework for inverse design of high-power RF LDMOS Transistors to supersede time-consuming traditional simulators.

IIIT NAYA RAIPUR

Chhattisgarh, India

RESEARCH INTERN Supervisor-Dr.Rajarshi Mahapatra [REPORT][CERTIFICATE]

6 Weeks - 2021

- Eliminated Outages and Improved Resource allocation strategies in Heterogeneous Wireless Networks using Deep Reinforcement Learning.

Bhaskaracharya Institute for Space Applications and Geoinformatics(BISAG)

Gandhinagar, Gujarat, India

RESEARCH INTERN Supervisor-Vishal Patel [REPORT][CERTIFICATE]

6 Weeks - 2021

- Developed Web Application for sentiment analysis of covid vaccination tweets alongside exploratory data analytics for general welfare.

ICMR – Centre for Innovation and Bio-Design(CiBiod)

Chandigarh, India (Remote)

RESEARCH INTERN Guide-Bikram kalsi [REPORT][CERTIFICATE]

7 Weeks - 2020

- Developed Web Application for detection of malady using patient's symptoms with the advent of machine learning for prediction of disease and propound medication for treatment.

The Sparks Foundation

Singapore (Remote)

DATA SCIENCE AND BUSINESS ANALYST INTERN [CERTIFICATE]

4 Weeks - 2020

- Completion of numerous tasks related to data analysis, data cleaning, data interpretation, and representation besides applying suitable machine learning algorithms to supplant industrial demands.

Shreeji Inc

Ahmedabad, Gujarat

PART TIME SOFTWARE ENGINEER Guide-Jaydip Gandhi

2019 - Present

- Successful Completion of IT Projects related to Employee Monitoring System, Employee Performance Evaluation System, and Customer Service Enhancement System alongside maintaining IT infrastructure.

Research Projects and Publications

- Neel Gandhi et al "Leveraging towards Privacy-preserving using Federated Machine Learning for Healthcare Systems" 2021 International Conference on Electronics, IEEE, Computing and Communication Technologies (CONECCT), 2021 [Best Paper Award]
- Neel Gandhi, "Stacked Ensemble Learning Based Approach for Anomaly Detection in IoT Environment." 2021 2nd International Conference on Range Technology (ICORT). IEEE, 2021 [Paper Link]
- Neel Gandhi and Dr.Shakti Mishra. "Explainable AI for Healthcare: A Study for Interpreting Diabetes Prediction." International Conference on Machine Learning and Big Data Analytics. Springer, Cham, 2021. [Paper Link]
- Neel Gandhi et al. "A CNN-BiLSTM based Approach for Detection of SQL Injection Attacks." 2021 International Conference on Computational Intelligence and Knowledge Economy (ICCIKE). IEEE, 2021. [Paper Link]
- Neel Gandhi and Dr.Shakti Mishra. "Modelling resource allocation in uncertain system environment through deep reinforcement learning." arXiv preprint arXiv:2106.09461 (2021). [Paper Link]
- Neel Gandhi and Dr.Shakti Mishra. "Applications of Reinforcement learning for Medical Decision Making." (2021). [Paper Link]

- Neel Gandhi and Dr.Shakti Mishra "Stacked Bi-directional and Uni-directional LSTM based approach for Sign Recognition using Surface Electromyography" **[Under Review]**
- Neel Gandhi "Training Quantum Machine Learning Models with Aid of Kernels" 2021 IEEE North American School of Information Theory **[Abstract Link]**

College Projects

Medical Image Segmentation **[Github]**

Artificial Intelligence

FACULTY ADVISOR-DR.PALLABI SAIKI,SNEHAL RAJPUT

Jan 2021-May 2021

- Segmentation of skin lesions and classifying them into seven different categories using Deep learning algorithms like UNet, CNN, and customized Unetv2 achieving the highest grade for the project.

TinyML-Speech Recognition**[Report][Demo]**

Embedded System

FACULTY ADVISOR-DR.HARDIK PATEL

Feb 2021-June 2021

- Detection of acoustic vocal sound waves by utilizing advanced edge ai-based architecture for audio detection with adequate accuracy achieving the highest grade for the project.

Covid record management system for public places**[Report]**

DBMS

FACULTY ADVISOR-DR.NISHANT DOSHI

July-Nov 2020

- Developing Covid record management system for maintaining records backed by SQL database, machine learning, and IoT. The system was developed and patented besides achieving the highest grade.

Big Data Analytics for Google Play Store **[Github][Report]**

Big Data

FACULTY ADVISOR-DR.SAMIR PATEL

August-Dec 2020

- Reckoning relevance of google play store apps on numerous features using Big Data Analytics for predicting ratings besides using Explainable AI techniques achieving the highest grade.

Financial Stock Recommendation System **[Github][Report]**

Machine Learning

FACULTY ADVISOR-DR.JIGARKUMAR SHAH

August-Dec 2020

- Created Portfolio Optimization system for asset allocation using deep reinforcement learning algorithms overriding existing financial recommendation system and received maximum grade from college panel members.

Achievement

- **All India rank 45** in National Creativity Aptitude Test **[Certificate]**
- **University rank 1** in ANALOG competition conducted by Texas Instruments **[Certificate]**
- **PCMC Scholarship** received Scholarship in form of cash prize in High School And Higher Secondary School in standard of 10th and 12th for excellent performance and excelled in many Olympiad by securing **leading ranks in IMO and NSO** in High School
- Got admits into prestigious summer schools including **EEML,OAMLS** and **SITARE BIIS**

Position of Responsibility

- **AI/ML Lead - (Google Developer Student Club)** -Leading a Core Team of 6 team members as AI/ML Lead and conducting international events in field of ai through Google-DSC. **[Certificate]**
- **Technical member- (Cretus)**-Involved in teaching and mentoring student from bachelor's, master's and other related programs to program on microcontrollers and microprocessors for developing cutting-edge iot products.

Technical Skills

Languages :Python,R, C/C++, SQL (Postgres), Matlab, Embedded C, JavaScript, HTML,CSS, Java,Visual basic

Developer Tools : Google Colab,Git,Google Cloud Platform,Tableau, Visual Studio, PyCharm,T-CAD,Shell Scripting,Simulink

Extracurricular Activities

- **Kaggle ranked under 5% worldwide** in many data science competitions. In addition to achieving **top-notch ranks in competitive coding competition(Codeforce, LeetCode)** worldwide.
- Participated as a **team leader in three hackathons** developing industry-standard projects comprising of Employee recruitment system, Fall detection system for covid patient and IoT based healthcare system for prevention of backflow of blood.
- Supporting Smart Village Movement affiliated with **University of California Berkeley Haas** for uplifting rural areas in eastern India in domain of healthcare with advent of technology