

S M Afzal Hashmi

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EDUCATION

IIT DELHI

MS IN SIGNAL PROCESSING

Grad: May 2023 | Delhi, India

NIET

B.TECH IN ELECTRONICS & COMMUNICATION ENGINEERING

Grad: May 2017 | Noida, UP

Percentage: 80%

COURSEWORK

MS(R)

- Introduction to Machine Learning
- Sensor Array Signal Processing
- Convex Optimization
- Advance Signal Processing
- Basics of Information Theory

ONLINE COURSES

COURSERA

- Introduction to **Computer Vision & Image Processing**
- Mathematics for Machine Learning

UDEMY

- **TensorFlow** Developer Cert. in 2022: Zero to Mastery
- Complete Machine Learning Data Science Bootcamp
- QMS Foundation level training certificate

SKILLS

PROGRAMMING

Language:

- Python • C • Embedded C
- SQL • Matlab • \LaTeX

Tools:

- Azure MLOps • Anaconda
- Google Colab • Jupyter
- Visual Studio • PyCharm
- GitHub • Bitbucket
- Label Studio

ML Python Libraries:

- PyTorch • Tensorflow • Keras
- Scikit-learn • NumPy
- OpenCV • SciPy • OCRs
- Pandas • Matplotlib

OS:

- Linux • Windows

EXPERIENCE

ASCENDUM SOLUTIONS INDIA | SENIOR DATA SCIENTIST

May 2023 - Present | Gurugram, India

- Implemented multiple **GAN-based ML Research Papers** for **Text Denoising**
- Utilized **LayoutLM** and **BERT** models for tasks related to **Document AI**
- Worked with multiple open-source **OCR** libraries for **Text Extraction**
- Developed models for attachment **Classification** and **Skew Correction**

IIT DELHI | SENIOR RESEARCH FELLOW(SRF)

Aug 2018 - April 2023 | Delhi, India

- Contributed to **India's Indigenous 5G test-bed (DoT)** by developing multiple applications and devices utilizing **5G mMTC(NB-IoT)** technology.
- Develop a 5G(mMTC) compatible Low-cost Air pollution Monitoring System capable of forecasting PM levels using Machine Learning.
- Spearheaded the design of a comprehensive **workbench for 5G mMTC (NB-IoT)** technology, providing hands-on training opportunities for over **200 researchers and students across India**. Organized multiple workshops to demonstrate the potential of the technology.

RESEARCH

AI POWERED ELECTRONIC STETHOSCOPE | PYTHON | EMBEDDED C | HARDWARE | MACHINE LEARNING

Bharti School, IIT Delhi | Researcher | Dec 2020 – Present | Delhi, India

Worked with **Prof Monika Aggarwal** to Design And Developed a **Multichannel Electronic Stethoscope** for **Auscultation & Telemedicine** use.

RADIO MAP PREDICTION MODEL | PYTHON | MACHINE LEARNING

CARE, IIT Delhi | Researcher | Dec 2022 – Feb 2023 | Delhi, India

Successfully submitted our **UNet3+** based ML model in 2023 **IEEE ICASSP "PATH-LOSS RADIO MAP PREDICTION"** challenge

PROJECTS

AI/ML AND DATA SCIENCE PROJECTS | PYTHON | MACHINE LEARNING

- Developed a machine learning program to detect multiple **Respiratory Diseases** on the basis of Heart and Lung Sounds(2023)
- Developed a ML model for **face detection** using a webcam (2022)
- Built a machine learning model for **Diseaster Detection from Tweets** using Natural Language Processing(NLP)(2022)
- Created a machine learning project, **BitPredict**, for predicting Bitcoin prices using **Time Series Forecasting**(2021)

WORKSHOPS/POR/ACHIEVEMENTS

- Successful Conducted multiple **NBLoT workshop** at IIT, Delhi(2023)
- Technology Showcase with societal impact in Healthcare at IITD R&D Fair **IIInvenTiv** at IIT, Delhi(2022)
- Product Demonstration at **Indian Mobile Congress**, New Delhi (2019-22)
- Successful Device Testing and collaboration with **Jio India** at Jio Park, Mumbai(2020) and **Airtel India** at Manesar, Gurugram(2020)