GAURAV GUPTA



SUMMARY

Seeking to leverage my love for mathematics and programming to get insights from data, improve products and help companies make better decisions. As an innovator at heart, I stay close to technology and market needs.

Accomplishments

- Invented new technology and methods to solve complex engineering and research problems
- · Excellent command over modeling, statistical, analytical methods and programming
- Strong leadership, teamwork and communication skills in cross-functional team
- Received Knowledge Based Product Development Award among all divisions of Boston Scientific

SKILLS

DATA ANALYSIS AND VISUALIZATION: Pandas, Numpy, Scikit-Learn, Keras, Python STATISTICAL METHODS AND MACHINE LEARNING: Classification, Regression, Clustering, Hypothesis testing ENVIRONMENTS: PostgreSQL, Jupyter Notebook, Pycharm, Matlab

PROJECTS

Invented novel detection algorithm for wireless charging of medical devices

Invented and patented new detection algorithms using novel sensing technologies as well as faster charging methods by creatively reducing wasted power in components. Created visualizations and analyzed production data to determine anomalies and problems. Resolved the issues by appropriate changes to the production process.

Patented predictive model for evaluating medical implants in MRI

Developed an award-winning predictive model to evaluate heating of medical implants during MRI scan of a patient. This method reduced development time from 6 months to 5 minutes. Created several hypothesis, collected data and analyzed results to select the correct hypothesis. This method is now part of international standard TS10974.

Diagnosis of breast cancer - a data science approach

Aug - Oct 2018

Automated the screening/diagnosis of breast cancer using supervised support vector machine classification on images of tissue. Achieved 95% accuracy.

Arrhythmia diagnosis and classification using ECG

Jan - Mar 2019

Improved classification accuracy of Arrhythmia to 95% using Convolution Neural Networks with Skip Connections

EMPLOYMENT

Boston Scientific Neuromodulation

Technical Lead	2014 - Present
Telemetry System Engineer	2012 - 2014
Senior RF Engineer ·	2008 - 2012

North Carolina State University

Research Assistant at ECE Department 2004 - 2008

EDUCATION

Springboard, Certificate course in Data Science	2018 - 2019
Wharton School - University of Pennsylvania, Master of Business Administration	2014 - 2016
Stanford Graduate School of Business - Stanford University, Advanced Leadership Program	2014
North Carolina State University, Ph. D, Electrical Engineering	2004 - 2008
Indian Institute of Technology, Guwahati, Bachelor of Technology, Electronics & Communications Engg	2000 - 2004