SIDHARTH MEHRA

MSc Artificial Intelligence - Stamp 1G

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in Sidharth-Mehra   github.com/sidmehra

EDUCATION

MSc in Artificial Intelligence
Cork Institute of Technology

📅 2019 - 2020   📍 Cork, Ireland

Percentage: 73% (First Class Honours)

Integrated Bachelor's (Computer Science and Engineering) + Master's (Intelligent System & Robotics)
Gautam Buddha University

📅 2014 - 2019   📍 Greater Noida, India

CGPA: 7.5/10 (First Class with Distinction)

EXPERIENCE

Research Analyst Internship
IIRIS Consulting

📅 June 2018 – July 2018   📍 Gurgaon, Sec–56, Haryana, India

- Exhaustive Research on use cases (Highway and Swimming pool security) of Artificial Intelligence and Machine Learning in Physical Security Operations.
- Designed high quality physical security layout using AUTOCAD for collaboration with ORACLE which is client of IIRIS.
- Worked in Command Centre Design of GENPACT Gurgaon office.

SAP BASIS Consultant Technical Internship
Waddaya Solutions Pvt.Ltd,

📅 June 2017 – July 2017   📍 Kaushambi, Ghaziabad, India

- Worked with SAP GUI, Configuration and Navigation within Unix environment OS.
- Performed User Activities like Creation, Password reset, Lock / Unlock user at the client side technical support.
- Roles Creation and Authorization as per client side to enhance customer experience and solve technical issues.

Founder
Sidh Global Food Products (GOLDEN LID)

📅 May 2014- August 2020   📍 New Delhi, India

- Involved in the creation of the end-to-end website of the entrepreneurial brand for better user experience and administration.
- Branding of the products through Digital Marketing.
- Data Analysis (Excel) of customer buying patterns to induce the promotions and to optimize manufacturing of the different products at the right time.
- Worked on creating the differentiation in the product (home-made and pure quality) - Emerged as the costliest pickle in the Indian market due to customer satisfaction.

LOOKING FOR

" An opportunity in Artificial Intelligence and Data Science with a leading company where I can gain further insights into the sector and contribute meaningfully to the growth of the company. "

CERTIFICATIONS

- Deep Learning Specialization – Coursera
- Machine Learning A-Z – Udemy
- Python Programming - Datacamp
- Training in Data Analytics - Internshala

TECHNICAL SKILLS

- Python/C++/Java
- Git Version Control and GitHub
- Databases - SQL, NoSQL and MongoDB
- Scikit Learn, NumPy and Pandas
- Matplotlib and Seaborn
- Tensorflow, Keras, PyTorch and OpenCV
- Apache Spark and Google OR-Tools

- Linear Algebra and Multivariate Calculus
- Probability and Statistics
- Problem Solving and Complexity Analysis

COURSEWORK

- Machine Learning, Deep Learning, NLP
- Big Data Processing, Computer Vision
- Decision Analytics (Constraint and Linear Programming)
- Data Structures and Algorithms, Metaheuristic Optimization
- Software Engineering, Computer Networking

STRENGTHS

- Committed, Flexible and Adaptable
- Analytical, Attention to detail
- Leadership and Communication Skills
- Innovative, Creative and Proficient

DISSERTATION PROJECT

Master's Thesis - Offensive Language Detection
Natural Language Processing, Machine Learning, Deep Learning

📅 February 2020 - May 2020   📍 Cork, Ireland

- To predict whether a given tweet is offensive or not.
- Dataset used- OLID (Offensive Language Identification Dataset).
- Handled Imbalance issue using various Under-sampling and Over-sampling techniques.
- Feature Extraction using Statistical Models like BOW, Tf-Idf, Unigram, Bigram, Trigram and their combinations. Pre-trained Word Embeddings like Word2Vec and GloVe.
- Machine Learning Techniques like Naive Bayes, SVM, Logistic Regression and Ensemble Techniques like Gradient Boosting, Random Forest and Ada Boost.
- Deep Learning Techniques like LSTM, Bi-LSTM, CNN and GRU.
- Achieved highest F1-macro of 82% with state of the art model BERT by Google.

ACADEMIC PROJECTS

Deep Learning Projects
TensorFlow 2.0 low level and high level API, Artificial Neural Networks, Convolutional Neural Networks

📅 February 2020 - May 2020   📍 Cork, Ireland

- Dataset used - Fashion MNIST dataset (Training images-60k and Test images-10k) - Ten class classification problem.
- Developed Neural Network from scratch using TensorFlow low level API along with L1 and L2 regularisation. Best Testset Accuracy - 96% with L2.
- Dataset used - Oxford Flower-17 dataset - Seventeen class classification problem.
- Different CNN architectures and Ensembles with Data Augmentation techniques (to reduce over-fitting).
- Transfer Learning - Feature Extraction(VGG16, VGG19 and InceptionV3 outputs with standard ML models) and Fine Tuning.
- Best Test set Accuracy - Fine Tuning with VGG16 model - 94.41%.

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Machine Learning Projects
Machine Learning, NumPy, Pandas, Scikit-learn, ML Pipelines

📅 September 2019 - December 2019   📍 Cork, Ireland

- Developed KNN from scratch using NumPy for three-class classification problem (Testset Accuracy- 92.8%) and Regression problem (R2 Accuracy- 85.11%).
- Dataset used - US Adult Income Dataset - 48842 instances - Binary Classification Problem - Machine Learning Life-cycle.
- Application of Various Machine Learning Algorithms like Decision Tree, Logistic Regression, K-Nearest-Neighbour, Naive Bayes, Gradient Boosting, Random Forest & AdaBoost.
- Data Preparation - Model Building - Hyper-parameter Optimization - Model Evaluation. Best Result - F1 Score of 0.89 - Tuned Random Forest.

ACHIEVEMENTS

CIT Societies and Clubs
Was a member of CIT Enactus Society, Business & Enterprise Society and Table Tennis Club

Table Tennis
2 consecutive years Gold Medalist in Zonal Competition, Table Tennis - Directorate of Education Govt. of NCT, Delhi, India

Volunteer Work
Associated with various NGOs for social causes such as Drug Rehabilitation, Orphanages and Environment.

Yoga
Certified Yoga Teacher from Bhartiya Yog Sansthan and Yog Seed.

Trekking
Certificate in Himalayan Adventure Training Programme @ Dalhousie, HP, India.

Art and Culture
Certificate in creating an Awareness for Art & Culture – Ministry of Culture, Govt. of India.

Music
Have undergone 5 years of formal training in classical music

REFEREES

Dr. Ted Scully
@ ted.scully@cit.ie
✉ Cork Institute of Technology, Cork, Ireland

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Dr. Mohammed Hasanuzzaman
@ Mohammed.Hasanuzzaman@cit.ie
✉ Cork Institute of Technology, Cork, Ireland

PUBLICATIONS

Communicated
Kumari, S.,Parasher, Y.,Mehra, S. & Kaur, G. (2020). Digitization in Agriculture – Insight into the network World. Artificial Intelligence and IoT-Based Technologies for Sustainable Farming and Smart Agriculture, IGI Global.