Washington, DC
(413)-800-1043
abhishekdutt1212@gmail.com

Abhishek Dutt

LinkedIn: Abhishekdutt9
Github: Abhishekdutt9

Education

Georgetown University, Graduate School of Arts and Sciences, Washington, DC **Aug 2021 — May 2023**
Master of Science, Data Science and Analytics, GPA 3.9/4.0
Relevant Coursework: Data Science, Probabilistic Modelling, Statistical Computing, Optimization, Machine Learning Models, Block Chain Technologies, Advanced Data Visualization, Smart Contracts

University of Massachusetts, Amherst College of Information and Computer Science, Amherst, MA **Aug 2017 — May 2021**
Bachelor of Science, Computer Science, Minor: Economics, GPA 3.6/4.0
Dean's list: Spring 2021, Fall 2020, Spring 2020, Fall 2019
Relevant Coursework: Databases, Algorithms, Data Structures, Micro and Macro Economics, Stats and Probability, Calculus, Artificial Intelligence, NLP, Machine Learning, Information Retrieval, Econometrics

Skills

Programming Languages	Python, R, SQL, CSS, HTML, C, C++, Java, Javascript, MS Excel, Solidity, Go
Libraries	Scikit-Learn, Keras, TensorFlow, PyTorch, NumPy, Pandas, NLTK, TextBlob, SpaCy, Gensim, Matplotlib
Frameworks & Services	Relational Database (MYSQL), NoSQL (MongoDB), Cloud (AWS, Azure, Google), Web Frameworks (Django)
Developer Tools	Git, VS Code, PyCharm, TravisCI, Tableau, Jupyter Notebook, Selenium, Docker

Work Experience

Research Assistant | *Python, Tableau, Excel* **Jan 2022 — Present**
McDonough School of Business, Georgetown University
- Analyzed peer programs to help make the MSF program at the McDonough School of Business more competitive
- Collected data using web scraping techniques and deployed various machine learning algorithms to analyze this data
- Automated the process of updating the dataset and generating semi-annual reports
- Documented the findings and provided regular updates to the Senior Director of Operations of the MSF program using advanced data visualization and data storytelling techniques

Graduate Teaching Assistant | *Python* **Jan 2022 — Mar 2022**
McDonough School of Business, Georgetown University
- Managed a class of 50+ graduate students in a Text Analytics course and taught about the applications of Machine Learning and NLP
- Examined major techniques used for mining data like APIs, analyzed text data to discover interesting patterns, extract useful knowledge, and support decision making, with an emphasis on statistical approaches applicable to text data
- Mentored students to use different APIs and libraries, also helped them by debugging their code throughout the course

Graduate Teaching Assistant | *Python* **Aug 2021 — Dec 2021**
McCourt school of Public Policy, Georgetown University
- Instructed a class of 20+ graduate students in a Machine Learning course for the McCourt school of Public Policy, Georgetown
- Focused on teaching three unsupervised learning techniques, implementation of Natural Language Processing, and Network Analysis using four policy-relevant data-sets in Python using libraries like NumPy, NLTK, Scikit-Learn, SpaCy, and TextBlob
- Formulated and graded all three assignments and exams, addressed conceptual doubts of students, and conducted a lecture

Project Experience

Analyzed the Recent Economic and Social Progress of India using Data [website link] | *Python, R* **Aug 2021 — Dec 2021**
- Implemented concepts like Data Collection using APIs, Cleaning, Filtering, Pre-processing, Modeling, and Knowledge extraction to find the reasons behind the 100%+ increase in the Foreign Reserves over 7 years and also analyzed the country's response to the COVID-19 pandemic
- Deployed supervised models like Random Forests, Support Vector Machines, Naive Bayes and Unsupervised Machine Learning Models like Clustering and Principal Component Analysis to draw conclusions

Developed a Food Image Recognition using a Five-Layer Convolutional Neural Networks | *Python* **Jan 2021 — May 2021**
- Spearheaded a team of three to develop the CNN model and presented the findings
- Developed a multi-food Image Recognition System which can handle 100 different kinds of foods
- Achieved the best accuracy of 78% with this CNN model using libraries like TensorFlow

Devised an Artificial Intelligence Bot for Connect-Four | *Python* **Aug 2020 — Dec 2020**
- Engineered a bot that plays a modified version of the connect-four game and defeated 50 other bots to in a class-wide contest
- Implemented the Minimax Algorithm and used concepts like Alpha-Beta pruning and improved run-time by over 70%
- Increased the speed of processing by running the algorithm only until a certain depth, while still making great calculated decisions