SHUBHAM KUMAR JAIN

Phone: +1 (631) 820-5887 **Email:** jshubham@cs.stonybrook.edu
Linkedin: www.linkedin.com/in/shubhamkumarjain **Website:** www.shubhamjain2706.github.io/me

SUMMARY

- Developed 2+ projects in Machine Learning, Data Analytics and Visualization that involved data preprocessing and applying different techniques.
- Have a good knowledge of Machine Learning libraries like TensorFlo, scikit-learn, and Big Data (handled over 5GB of data), Spark RDDs.
- Implemented 5+ projects in Python for web APIs, data analysis, cryptographic algorithms.
- Proficient in RESTful API endpoints, problem-solving, data-structures, programming skills, debugging and software lifecycle.
- Fluent in Python, C, C++ and Java, and Linux Kernel Programming.

EDUCATION

Stony Brook University, New York   **Aug 2017 - Dec 2018 (Expected)**
Master of Science, Computer Science w/ **GPA: 3.58/4.0**
- Big Data Analytics, Data Mining Concepts and Techniques, Analysis of Algorithms, Operating Systems, Theory of Database Systems

Jaypee Institute of Information Technology, Sector-62, Noida, India   **Aug 2013 - May 2017**
Bachelor of Technology (B.Tech.) with Honours, Computer Science w/ **GPA: 8.0/10.0**
- Machine Learning and Big Data Analytics, Data Warehouse and Business Intelligence, Object-oriented Programming, Data Structures

TECHNICAL SKILLS

- **Languages:** C, C++, Python, Spark, Java, HTML, CSS, JavaScript, XML, XQuery, PHP, SQL, JSON, JSP, 2APL
- **Libraries & Big Data Ecosystems:** STL, SciPy, scikit-learn, TensorFlow, NumPy, Pandas, NLTK, PySpark, MapReduce
- **Technologies:** RESTful Web API, Linux Kernel Programming, Maven Build Tool, Apache Solr
- **Database Management Systems:** SQLite, MySQL, MongoDB, PostgreSQL, Flora
- **Frameworks & Environments:** Spring, Django, Bootstrap, Spring Tool Suite, Postman, Weka, Android Studio, Git, GitHub, PyCharm, IntelliJ, Eclipse
- **Graphic/UI Design:** Adobe Photoshop, Adobe Illustrator

CERTIFICATIONS

- **Python for Data Science and Machine Learning Bootcamp, Udemy** | *License UC-DE4Z0TP1*   **Jul 2017**
- **Machine Learning A-Z™: Hands-On Python & R In Data Science, Udemy** | *License UC-8WP3YF2P*   **Jul 2017**
- **Deep Learning A-Z™: Hands-On Artificial Neural Networks, Udemy** | *License UC-5T8Z4XOY*   **Jul 2017**
- **Introduction to Python for Data Science (edX) Course, edX** | *License 3390138*   **Jul 2017**

PROJECTS (GitHub: www.github.com/shubhamjain2706)

EaserGeoCoder (w/ Prof. Fusheng Wang) | May 2018 - Aug 2018 (Expected) | Spring Boot, Maven, Apache Solr, Python
- Designed the RESTful web API using Spring Boot and Maven to geocode the given address and display it on Google Maps (API).
- Performing machine learning techniques in Python to analyse New York state's patients data for future predictions.

Deduplication and Recycle Bin Functionalities in Linux Kernel (under Prof. Erez Zadok) | Feb 2018 - April 2018 | Linux Kernel, C
- Created a minimal Linux Kernel configuration for Kernel 4.6 with 1000 LOC.
- Implemented User level and Kernel level code to create new system call and perform deduplication of two similar files.
- Performed de/encryption and de/compression to protect the files before moving it to the recycle bin. Handled failures and recovery systems.
- Developed a multi-threaded queueing system to efficiently delete multiple large files a/synchronously.

Cradle - Online Judge (w/ Prof. Kevin McDonell) | Jan 2018 - Aug 2018 (Expected) | Python, Django, HTML, CSS, Bootstrap, JavaScript
- Designed the web application for Stony Brook University's centralized online judge for grading .PY, .JAVA and .ASM assignments.
- Added functionalities like email confirmation and reset password to support login for only Stony Brook's students.
- Developed different interfaces for students and instructors to submit and grade the assignments respectively.

Zero Hunger - Sustainable Development Goal 2 (under Prof. Andrew Schwartz) | Nov 2017 - Dec 2017 | Python, Spark, TensorFlow, Pandas
- Scraped data from twitter and applied Bloom filter with 5% error probability while streaming.
- Performed data cleaning and normalization on 5GB of data in Spark RDDs.
- Applied Ridge regression using TensorFlow to predict future trends, and visualized data using Pandas DataFrames and choropleth maps.

Finding similarity in satellite imagery | Nov 2017 | Python, Spark
- Processed different images and converted them to feature vectors using NumPy and Spark RDDs.
- Implemented Locality Sensitive Hashing to find the similar candidates by tweaking the number of rows, bands of the signature matrix.
- Applied dimensionality reduction using PCA to reduce the number of features and calculated euclidean distance to find most similar images.

Company Ownership Database Management System (under Prof. Michael Kifer) | Sep 2017 - Nov 2017 | Flora, PostgreSQL, JSP, XML, XQuery
- Created and managed database of a company and its people on Flora, PostgreSQL and XML.
- Implemented queries involving recursion and quantifiers on Flora, JSP and XQuery to fetch and display data accordingly.

Multi-Agent Programming - Artificial Intelligence | Jan 2017 - May 2017 | Java, 2APL
- Implemented and analaysed the performance of N-Queen Problem w/ different algorithms using the concept of AI.
- Created the application in Java while coded the algorithms in 2APL (A Practical Agent Programming Language), which uses the BDI Model.

Stock Market Price Analysis | Aug 2016 - Dec 2016 | HTML, CSS, PHP
- Gathered the stock prices of 5 major IT firms, and analyzed the data using Regression analysis, Bollinger band and Holt-Winters algorithms.
- Estimated and visualized (using HighCharts) the ongoing trends to help buy/sell a stock.

Data Analysis & Encryption Transfer System (D.A.R.T.S) | Jan 2016 - May 2016 | Python
- Implemented 5 different algorithms namely, RSA, AES, DES, Image Steganography and a self made algorithm to encrypt and securely transfer files of 5 different formats (.txt, .pdf, .doc, .jpg and .png) over a network.

INTERNSHIPS

UI/UX Development Intern | *Boiban-it, Noida, India*   **Dec 2015 - Jan 2016**
- Developed, integrated, debugged and tested the user interface of the fully functional real-world Android application in Java and XML.
- Used MongoDB for database and HTML, CSS (w/ Bootstrap) and JavaScript for the website's user interface.