Ayush Bhandari

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EDUCATION

Sep 2018- Dec 2020 **Master of Science in Data Science** 3.46/4 *Northeastern University, Boston, MA*
Relevant Courses: Algorithms, Data Management and Processing, Deep Learning, Information Visualization, Natural Language Processing, Supervised Machine Learning and Learning Theory, Unsupervised Machine Learning and Data Mining, Large Scale Parallel Data Processing

Jul 2014- Jun 2018 **Bachelor of Engineering in Computer Science** *Birla Institute of Technology,India*
Relevant Courses: Data Structures, Algorithms, Soft Computing, Database Management Systems, Data Mining and Data Warehousing, Software Engineering, Object Oriented Programming, Parallel and Distributed Systems

WORK EXPERIENCE

Apr 2021- Present **Data Scientist** Afiniti, Washington DC, DC
- Monitored production database closely to find any discrepancies and resolve them
- Implemented scripts in R to make models for better matching of callers and agents across various call centers to maximize gain and thereby client revenue
- Created statistical models in STAN for Bayesian inference

Jan 2020- Aug 2020 **ML Engineer Intern** Examity Inc., Newton, MA
V5 Platform
- Created Face Verification page in exam workflow leveraging Microsoft Cognitive Services API and achieved perfect matching for 70% images with 0.4 threshold enabling automatic test-taker authentication
- Migrated exam videos from Rackspace to AWS S3 for creating models to enhance flagging
- Customized automated flagging to be enabled or disabled as per client's request
- Added Amplitude logging to all UI CTAs of the Angular application for test taker interface to capture all events triggered by user interaction
- Resolved various full-stack bugs in the Angular application as well as extension component

Apr 2018- Jul 2018 **Trainee Engineer** Genus Power Infrastructures Ltd., Jaipur, India
DB-Urja Nxt
- Compiled and generated Client-side reports in C# using Microsoft RDLC for visualization of electrical meter data from SQL server

6-Channel DC Wave Data Logger
- Developed a protocol in C# for downloading data from micro controller to a pc via UART
- Implemented code for UART and EEPROM in embedded C for micro controller TI MSP 430 to store data and transfer it to a computer

ACADEMIC PROJECTS

Oct 2020- Dec 2020 Image De-Identification Using Deep Learning
- Built GAN using U-NET architecture for anonymizing images retaining gender, background and ethnic information
- Achieved similarity of less than 0.3 on matching original and anonymized image
- Deployed the models on AWS EC2 instance and created a web UI using Flask microframework

Oct 2019- Dec 2019 Question Answer Modeling Using Deep Learning
- Designed a baseline embedding + extraction model for answering questions specific to a context based on cosine similarity and named entity recognition thereby acquiring F_1 score of 0.46 on where, when and who questions
- Restructured baselined model utilizing BiDAF for improving answer span to contain the specific portion of context thus attaining F_1 0.58 for 0.1 learning rate and 30 epochs

Jan 2019- Apr 2019 Multi Label Image Classification of Yelp Image Dataset
- Implemented CNN-RNN with SPP (Spatial Pyramid Pooling) to classify businesses using images
- Compared performances of AlexNet, AlexNet-RNN with and without SPP using F_1 score as a criterion where AlexNet-RNN with a score of 0.72 predicted best sequence of labels

TECHNICAL SKILLS

Languages	Python, Java, C#, R, HTML, SCSS, JavaScript, SQL
Frameworks	AngularJS, .NET
Packages	Pandas, NumPy, Scikit-Learn, TensorFlow, Keras, Matplotlib, Seaborn, PyTorch, OpenCV, NLTK, Boto, SQLAlchemy
Big Data	Hadoop, Map Reduce, HDFS, PySpark, RDD
Software	Visual Studio, RStudio, Jupyter Notebook, Azure Data Studio, Microsoft SQL Server Management Studio, Git, Jira
Databases	MySQL, SQL Sever
Cloud	Amazon Web Services (EC2, S3), Microsoft Azure (Microsoft Cognitive Services, Azure DevOps)
Machine Learning	Regression, Clustering, Classification, Dimensionality Reduction, Topic Modeling, Deep Learning, Hypothesis Testing, Predictive Modeling