Arnav **Arnav**

Data Scientist · Data Engineer · Software Engineer

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Education

Indiana University — *Bloomington, IN*

M.S. in Data Science — *Aug. 2017 - May. 2017*

Tezpur University — *Tezpur, Assam, India*

B.Tech. in Computer Science and Engineering — *Aug. 2012 - Jul. 2016*

Experience

Franchise Data Solutions, LLC. — *Orlando, FL*

Software Engineer — *Apr. 2020 - Jul. 2020*

- Added new functionality to the company's organization, resource and operations management web application platform, using Flask, PostgreSQL, SQLAlchemy, HTML, CSS and Javascript
- Automated data pulls for the platform and integrated custom reporting functionality on the platform based on the data pulled daily from various resources

The Walt Disney Company — *Orlando, FL*

Decision Science Professional Intern — *Aug. 2019 - Apr. 2020*

- Implemented a state space post processing approach to dynamically adjust product level demand forecasts based on newly observed data points using Python and SAS that improved 70% of Disney Cruise Line booking forecasts with a mean improvement of 35% in absolute error
- Implemented data preparation, feature engineering, and output monitoring and built models for daily attendance forecasting using Pyspark, Teradata, Tableau and scikit-learn

Indiana University: Luddy School of Informatics Computing and Engineering — *Boomington, IN*

Associate Instructor — *Aug. 2018 - May. 2019*

- Evaluated student submissions and projects in various modules that cover, Hadoop, Spark, Scala, and Deep learning
- Created course content and setup tutorials for Machine Learning with Spark module and updated content for Hadoop, Scala and Deep Learning Modules

Navyug Infosolutions — *Noida, UP, India*

Software Engineer Intern — *Oct. 2016 - Jul. 2017*

- Developed and deployed an interactive and responsive internal project management web application (Gofer) used by 200 people using Ruby on Rails, Ember.js and JQuery-UI
- Integrated the application with Google APIs to provide Project Project Managers access to auto generated time sheets used for downstream cost analyses and fund allocation, and packaged as an android application using Apache Cordova and Android SDK

Projects

Deep Gaussian Processes for Representation Learning — *Indiana University, Bloomington*

Learning Theory and Graphical Models — *Jan. 2019 - May 2019*

- Implemented a hierarchical Gaussian Process Latent Variable model for representation learning for supervised and unsupervised tasks using GPFlow and Python
- Tested the performance of the learned representations on image reconstruction and classification tasks on oil flow, MNIST handwritten characters and Frey faces data sets. Link to code: github.com/seashiva94/DeepGPLVM

Speaker Identification and Verification from Audio — *Indiana University, Bloomington*

Machine Learning for Signal Processing — *Aug. 2018 - Dec. 2018*

- Trained a Siamese neural network based on VGGVox model on the VoxCeleb dataset using Python, PyTorch on AWS and achieved 0.78 precision and 0.84 recall on the data and developed a terminal application using python and shell for speaker identification and verification
- Link to code: github.com/seashiva94/speaker-identification

Open Domain Information Extraction — *Indiana University, Bloomington*

NLP Lab — *Jul. 2018 - Dec. 2018*

- Extract object-predicate relationships from text using various NLP modules and store them in Neo4J to enable semantic search, through a Flask based web page
- Linked the extracted entities to various existing knowledge graphs like DBpedia, and enriched the knowledge graph by adding information from various reliable sources such as Concept Net ans MS Concept Graph

American Sign Language Recogntion from Video — *Tezpur University, Assam, India*

Final Year Project — *May. 2016 - Aug. 2016*

- Built a desktop based application to recognize American Sign Language gestures from video and convert them to text sentences using Python, OpenCV and WxWidgets based on American Sign Language Lexicon Video Dataset(ASLLVD) usng a deep neural network
- Achieved 85% accuracy in individual word detection and 60% accuracy in translating sentences