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Shraddha Singh

Data Scientist

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Data Scientist with 3+ years of experience in designing data solutions for various client and research problems. Looking for a role focused on implementing machine learning algorithms for business solutions in any domain.

Skills

Tools and Languages	Python, Git, PyCharm, Jupyter, Tensorflow/Keras, Kubernetes, Docker, Pytorch, Visual Studio Code
Communication	English, Hindi (fluent speaker)

Technical Experience

Data Scientist / Maximo Application Suite — **Feb 2020 — Present**
IBM — *Austin, Texas*

- Analyzed near real-time time-series data and designed **unsupervised learning** solutions to perform descriptive **anomaly detection** to meet client needs.
- Created proof-of-concept **neural-network** models for a potential client project to **forecast** energy demands using **tensorflow**.
- Created **supervised learning** models to aid decision making process of material ordering tool and utilized **explainability** tools to understand and build client trust in the model.
- Adapted **foundation models** on outage prediction and weather forecasting tasks using **pytorch** and **cloud computing** resources
- Developed backend APIs using **Flask** framework, and maintained and deployed containerized services on **Kubernetes**.

Extreme Blue Data Scientist Intern / IBM Cloud and Storage Systems Support — **May 2019 — Aug 2019**
IBM — *Durham, North Carolina*

- Implemented and deployed **supervised machine learning** model to proactively predict negative outcomes for server systems.
- Executed exploratory data analysis using **ELK stack** and **python** to understand and clean the data.
- Participated in pitching project progress to IBM Executives on a weekly basis to get feedback and generate interest in the project.

Verification Engineer / Power 9 Processor Development — **June 2015 — July 2018**
IBM — *Austin, Texas*

- Performed functional unit verification for OpenCAPI data link unit in Power9 processor and for memory controller unit in Power9 and Power9-Axone processors using **C++/RTX**.

Research Assistant Intern/ ESE REU — **May 2014 — August 2014**
REU 2014 — *University of Alabama, Alabama*

- Research Project: Evaluating the contribution of a code reviewer's attribute in determining the effectiveness of a review.
- Built and labeled a structured data set of several review requests and reviewers using **SQL**. Utilized Amazon's Mechanical Turk as a crowd-sourcing platform as an experimental approach to generating labeled data set. Used the data set to calculate different characteristics of reviewers.
- Used **SPSS** to construct **decision trees** to analyze and rate the effects of reviewer characteristics on the effectiveness of a review.

Research Assistant Intern/ Amalthea REU — **May 2013 — August 2013**
REU 2013 — *Florida Institute of Technology, Florida*

- Reserach Project: Mixture Distribution Modeling on the Tangent Space of Hyper-Spherical Reproducing Kernel Hilbert Space.
- Generated kernel transformations to map data set to Hilbert spaces to obtain a distribution suitable for machine learning tasks.
- Investigated the outcome of transformation in clustering and classifying tasks by comparing classification results to 1-Nearest Neighbor, Naïve Bayes, and Quadratic Discriminant Analysis classifiers, and clustering results to hyper-spherical clustering.

Education

Master of Science in Computer Science (Machine Learning), *Georgia Institute of Technology* — Dec 2019
Bachelor of Science in Electrical and Computer Engineering, *University of Texas at Austin* — May 2015

Activities

Penguins at IBM Employee Resource Group, Mascot and Co-Chair	2015 – Present
WiDS Datathon 2021, Participant and Team Lead	2021
Experience IBM Cloud with TJBot, Participant	2018
UTCS Annivarsary, IBM Prepresentative	2016
Intro to Electrical Engineering, Teaching Assistant and Tutor	2013 – 2015
Introduce a Girl to Engineering Day, Volunteer	2013