Mihir Chauhan

Engineer, Researcher and Teacher

With 4+ years of academic & industry experience in AI, machine learning, deep learning and computer vision. Aiming to develop intelligent technology to help the industry solve problems as a summer 2021 intern.

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Experience

Instructor & Teaching Assistant

University at Buffalo

2018 - present — Buffalo, USA

- Helped teach Machine Learning and AI to over 700 MS and BS students.
- Developed python-based ML projects, taught in lectures and recitations and help students get answer to questions.
- Awarded with Best Graduate Teaching Award in 2019

Research Intern

VETRO FiberMap®

May 2019 – Aug 2019 — Buffalo, USA

- Developed a proof of concept that helps telecommunication service providers exchange, lease, and provision asset-based services between them without the friction of intermediaries using ML and Blockchain.
- Built a recommendation model for fiber-optic asset leasing using collaborative filtering.
- Designed an automated fiber optic network designer using Graphical Neural Network.

Research Intern

SAP Labs LLC

June 2018 – May 2019 — Palo Alto, USA

- Research developer in an innovation project which created new cloud businesses and established a technology platform that enables SAP to serve emerging relationships between employers and gig economy workers.
- Developed a proof-of-concept of decentralized employment verification system using Hyperledger Fabric and Multichain Blockchain Framework with Hana Database on SAP Cloud Platform

Developer Intern

Veritas Technologies LLC

May 2017 – Aug 2017 — Mountain View, USA

- Developed a platform for Customer Order Workflow by building a predictive Bayesian Network for order tracking
- Built personal assistant to leverage NetBackup related information via Slack using NLP, Java and Node.JS
- Deployed a prototype for Apps Marketplace for NetBackup, Veritas

Graduate Research Assistant

University at Buffalo

Jan 2017 – May 2017 — Buffalo, USA

- Built automated scoring models for unstructured input response of assessment using Word2Vec for pre-training and Naïve Bayes, LSTMs and CNNs approaches to evaluate the downstream task.

Education

PhD in Computer Science — University at Buffalo

Jan 2018 – Feb 2022 *(Anticipated)* — GPA: 3.8/4.0

Researching on Self-Supervised Representation Learning for comparison advised by Dr. Sargur Srihari

MS in Computer Science — University at Buffalo

Aug 2016 – Jan 2018 — GPA: 3.7/4.0

Bachelors in Electronics & Communication — VJTI

Aug 2012 – May 2016 — GPA: 3.6/4.0

Skills

Python | Java | C | HTML | CSS 3 | JS | MySQL | PostgreSQL | Oracle | Hana

Other: Tensorflow, Keras, Solr, NodeJS, AWS, Matlab, R

Projects

Visual Speech Recognition (Python, OpenCV)

- Extracted HOG features and built a HMM to evaluate visual speech recognition model on GRID dataset.

Summarization Alexa Skill (Python, Node JS, AWS)

- Developed text summarization API using LSTM architecture on google search results. The API was hosted as an 'Info Source' Skill using AWS Lambda.

Cross Lingual Information Retrieval (JAVA)

- Implemented language translation technique using Okapi BM25 ranking function. Ranked tweets by user query language to get improvised results using Solr.

Bayesian Network for Dating (Python)

- Developed a BN model by using frequentist approach for a speed dating dataset to infer MPE, probabilistic and marginal queries that affects the decision making of the host and the partner.

Publications

- Attention based Writer Independent Handwriting Verification ICFHR 2020
- Explanation Based Handwriting Verification, BMVC 2019 Cardiff, Wales, UK
- Hybrid Feature Learning For Handwriting Comparison, ICFHR 2018 Buffalo New York
- Writer Verification using CNN feature extraction, ICFHR 2018 Buffalo New York
- Ultra Efficient Transfer Learning with Meta Update for Cross Subject EEG Classification