

Prerna Trushar Bhavsar

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Education

University of California, San Diego

March 2021-December 2022 (Expected)

- Masters of Science in Computer Science

GPA: 3.95/4

Relevant Courses: Algorithms, Network Systems, Advanced Statistical NLP, Recommender Systems

Teaching Assistant: Theoretical Foundations of Data Science II, Machine Learning

Dwarkanadas J Sanghvi College of Engineering, University of Mumbai

August 2016-October 2020

- Bachelor of Engineering, Computer Engineering

GPA: 9.72/10

Relevant Courses: Algorithms, Advanced Algorithms, Data Structures, Machine learning, Artificial Intelligence, Natural Language Processing, Web Technologies, Operating systems, Database management, Software Engineering

Skills

Languages: Python, Golang, Java, C

Web Development: HTML, CSS, JavaScript, ReactJS

Database Technology: MySQL, PostgreSQL, MongoDB, PHP

Frameworks: PyTorch, TensorFlow, Keras

Miscellaneous: AWS, Git, Algorithms, Data Structures, Machine Learning, Natural Language Processing

Experience

Software Engineer Intern – ResearchLoupe

June 2021-September 2021

- Implemented 4+ features for the admin and university login in ReactJS
- Designed and formalized the plan to populate the MongoDB database for engineering schools
- Optimized the existing features to reduce computation time by 30%
- Integrated and merged code routines for the front-end, maintained on AWS CodeCommit
- Fixed bugs and improved user interface design for pre-existing features

Software Developer - Data Science – Pivony

July 2020-October 2020

- Developed the Python backend by working on AWS EC2 instances, S3 buckets, and RDS
- Maintained 4 Docker containers for multiple pipelines in the AWS instances
- Deployed and integrated 15+ Rest APIs for its product TopicScope
- Enhanced the LDA topic-modeling algorithm by parameter tuning and explored alternate solutions such as GSDMM
- Implemented features like topic labeling, named entity recognition for TopicScope
- Onboarded and trained incoming employees to follow the company's best practices

Web Developer Intern – Chilsag Entertainment Network

June 2018-August 2018

- Maintained the company's website as well as worked on a new client project's front-end development
- Contributed towards the development using WordPress, HTML, CSS, and JavaScript

Academic Projects

Online Food Delivery Website – Tech Used: HTML, CSS, JavaScript, JQuery, Django, Python

- The website's front page describes the various services offered. It includes features like different restaurants to choose from along with a cart for ordering food which displays the total bill for the customers

Railway Management System – Tech Used: Java, Netbeans, MySQL

- It is a desktop application where a user could choose from a range of trains by providing their desired source and destination. Further, they can make their booking and check the status using their user details

Learning Dense Representations from Peptide Mass Spectra – Tech Used: Python, PyTorch, NLP, DL Algorithms

- The project experiments with Siamese Network architecture to learn novel dense and compressed fixed-sized representations of peptide mass spectra
- These representations are used for downstream tasks like clustering, cosine similarity matching and sequence generation
- The model achieves an F1 score of 0.72 for same peptide matches

Automating the Generation of ICD Codes from Medical Records – Tech Used: Python, Deep learning algorithms, NLP

- The project uses CNN along with LSTM for textual understanding and further generation of the codes. ICD codes are the codes assigned to medical summaries based on diagnoses and procedures performed

Research Publications

- P Bhavsar, P Jhunjhunwala, L D'Mello. *Attribute Reduction for Medical Data Analysis using Rough Set Theory* is published in Springer Book series "Algorithms for Intelligent Systems (AIS)"

Leadership & Involvement

Jt. Secretary – DJLIT, Literary Society

September 2018-October 2019

- Organized and coordinated multiple literary events like quizzes, JAMs, debates under the committee's banner
- Devised, negotiated and finalized the budgetary requirements, location and other official paperwork for all the events