Prerna Bhavsar

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Education

University of California, San Diego **March 2021-December 2022 (Expected)**
- Masters of Science in Computer Science. **GPA: 3.85/4**

Relevant Courses: Advanced Statistical NLP, Big Data Science and Knowledge.

Dwarkadas 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, 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, Deep Learning, Natural Language Processing

Experience

Software Engineer Intern – *ResearchLoupe* **June 2021-Present**
- Designed 3+ features for the admin and university login in ReactJS
- Create and implement a plan with another team member to populate the database for engineering schools
- Work on fixing and updating existing features for the business schools
- Review and merge pull requests for the front-end code maintained on AWS CodeCommit
- Implement and deploy routines for the back-end using Python and MongoDB for database management

Graduate Teaching Assistant – *Halicioglu Data Science Institute, UC San Diego* **March 2021-June 2021**
- Assistantship for the course DSC 190 Introduction to Machine Learning under the supervision of Prof. Justin Eldridge

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 pipeline applications in the AWS instances
- Deployed various pre-processing enhancements and 15+ Rest APIs for TopicScope
- Worked on enhancing the LDA topic-modeling algorithm as well as finding alternate solutions such as GSDMM
- Implemented features like topic labeling, parameter tuning for its product TopicScope

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
- The project employed database operations using MySQL queries

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 by using PyTorch and Python
- These representations are used for downstream tasks like clustering, cosine similarity matching with raw spectra and sequence generation

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)"