

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.

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: C, Java, Python

Web Development: HTML, CSS, JavaScript, ReactJS

Database Technology: MySQL, PostgreSQL, PHP, MongoDB

Frameworks: PyTorch, TensorFlow, Keras

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

Experience

Software Engineer Intern – ResearchLoupe

June 2021-Present

- Work on the front-end features of the engineering schools project by coding in HTML, CSS and ReactJS.
- 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 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 newer solutions.
- Implemented applications of data science like topic labeling, parameter enhancements 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 included different restaurants to choose from and a cart for ordering which displays the total bill for the customers.
- The website was developed using HTML, CSS, JavaScript and the backend used Python.

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

- It is a database management project, which provides 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.
- Further, 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)" on May 7, 2020 with ISSN-2524-7565.