

# Prashanth Rao

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## EDUCATION

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- **University of Texas at Dallas** Richardson TX  
*Masters, Computer Science; GPA: 3.81/4.0* Jan 2018 – Dec. 2019
- **VIT University** Vellore, India  
*Bachelor of Technology, Electronics and Communication Engineering; GPA: 3.5/4.0* Jul 2013 – Jul 2017

## TECHNICAL SKILLS

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- **Programming Languages:** C++, Java, Python
- **Databases:** SQL, Cassandra, BigTable, MongoDB
- **Web Technologies:** HTML, CSS, Javascript, jQuery, PHP, Ajax, Express, AngularJS, NodeJS, Rest, Soap
- **Big Data Technologies:** Hadoop, Spark, Kafka, Pig, Cassandra, Data Bricks
- **Tools:** Git, Eclipse, OpenCV, PyTorch, Tensorflow, Slack, Latex

## COURSEWORK

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Database Design, Advanced Algorithms, Web Programming Languages, Machine Learning, Operating Systems, Discrete Structures, Data Structures and Algorithms, Statistical Data Science, Big Data Management and Analytics, Computer Vision

## PROJECTS

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- **Political Event Coding:** Gathering news articles from a list of websites and encoding them in a 'who-what-when-where' format in MongoDB using Spark and NLP. Included:
  - Scraping articles from the web using web scrapers like Scrapy and Newsplease
  - Article metadata extraction using CoreNLP and storing the results in MongoDB
  - Encoding the article in 'who-what-when-where' format using Petrarch
- **Contact Manager:** A graphical user interface application that manages a list of contacts by interacting with an SQL database. Front-end design was created using Java. Features include:
  - searching for a contact using any field, adding a new contact
  - updating or deleting an existing contact, displaying all contacts
- **Easy Movers:** A full stack website for a moving company. Built front end using HTML, CSS, Javascript and Bootstrap. Back-end was implemented using MySQL and PHP. Features include:
  - user signup, form validation and user login
  - user cart, checkout and order history
  - search filter (text and category) for displaying products
  - admin privileges - updating product information, removing a product, or adding a new product
- **DavisBase:** A simple database engine based on a file-per-table variation of the SQLite file format. Features include:
  - DDL operations: create database, create table
  - DML operations: update table, insert into, delete from table, drop database, drop table
  - DVL operations: show tables, show databases, describe table, use database
- **Task Executor Library:** A service that accepts instances of tasks and executes each task in one of the multiple threads maintained by a thread pool. Implemented using multithreaded synchronization and blocking FIFO queue.

## OTHER PROJECTS

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- A news classifier for classifying news articles from the Guardian website using Kafka and Spark
- A generic client-server application that implements the CRUD operations.
- Finding mutual friends of any two users using Hadoop Mapreduce

- A video library store built using the Mean Stack
- Classifying the wine dataset from the UCI Machine Learning Repository
- Extracting information from the Yelp dataset using Apache Spark and SparkSQL
- A complete database for a fitness center