

VIGNESH THIAGARAJAN

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EDUCATION

Master of Science in **Computer Science – Concentration: Data Science**

EXPECTED

The University of Texas at Dallas – CGPA 3.78

MAY 2021

Coursework: Statistical Methods for Data Science, Machine Learning, Design and Analysis of Algorithms, Big Data Management and Analytics, Web Programming Languages, DB Design

Bachelor of Technology in Electrical and Electronics Engineering

MAY 2018

Amrita University – CGPA: 3.8

Coursework: Statistics and Numerical Analysis, Foundations of IT, C Programming

Honors and Awards: Graduated with First Class, Distinction (Highest Honors)

TECHNICAL SKILLS

Programming Languages	:	R, Python, Java, C, Scala
Web Languages	:	HTML5, CSS, Bootstrap, RESTful API, XML, JavaScript, JQuery
Database Languages	:	SQL, PL/SQL, NoSQL (MongoDB)
Big Data Technologies	:	Hadoop, Apache Spark, Apache Hive, Apache Kafka, Impala, Amazon S3, Amazon EMR, Microsoft Azure Databricks, Azure Blob Storage
Tools/IDEs	:	Eclipse, IntelliJ, Visual Studio, Power BI, Matlab, LabVIEW

WORK EXPERIENCE

Data Engineering Intern, ANSYS Inc.

JAN 2020 – APRIL 2020

- Automated Data Collection, Data Cleaning/ Preprocessing, Data Storage and Reporting through Pyspark and Azure Databricks.
- Utilized PySpark for processing of large amounts of data.
- Reduced run-time of most dashboards by 20%-50% and reduced run-time of main dashboard by 85% by optimizing queries.
- Utilized Power BI, Databricks and Jupyter notebooks to create visualizations.
- Created new workflows and documented all key changes.

Graduate Teaching Assistant, UT Dallas :

SEP 2019 – DEC 2019

- TA for the Course CS 3340 at UT Dallas (Undergraduate Computer Architecture).
 - Graded Assignments, projects and performed other student evaluations.
 - Helped students with queries and providing additional materials and guidance during office hours.
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ACADEMIC PROJECTS

Online Music Store Web Application (MongoDB, Express.js, AngularJS, Node.js)

- Developed Full stack Web application which implements an online music store.
- CRUD operations were implemented for shopping cart items.
- User registration, User login and logout, navigation bar, search by name and genre were implemented.
- User account details, admin details, music albums and other data were stored in MongoDB.

Text Summarization (Apache Spark, Scala, Amazon EMR, Amazon S3)

- Represented sentences in vectorized format and found the similarities between them using cosine similarity.
- Implemented PageRank algorithm to assign ranks to all sentences.
- Classified the sentences as either Summary text or non-Summary text using Decision trees.

Random Forest and KNN Classifier (Python)

- Implemented Random Forest Classifier from scratch and utilized to train a model on Kaggle's Breast Cancer dataset and achieved accuracies comparable to scikit Learn libraries for random forests (~98%).
 - Implemented KNN classifier from scratch and obtained efficient classifier (accuracy ~95%) on the same dataset. Achieved results similar to those obtained with the scikit's inbuilt classifier.
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CERTIFICATIONS AND ACHIEVEMENTS

- Certified LabVIEW Associate Developer**- Received after undergoing **National Instruments'** training program.
- Graduated from Bachelor's degree with **highest honors (distinction)**, 2018.
- Published** a technical paper in **IEEE PEDES Conference, 2018**: Link to the publication in the IEEE website: <https://ieeexplore.ieee.org/document/8707465>