

# Devika Unnikrishnan

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## EDUCATION

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### Master of Science in Computer Science

University of North Carolina at Charlotte

Relevant Coursework: Algorithms and Data Structures, Database Systems, Cloud Computing, Big Data and Analytics, Computer Vision

GPA : 3.75/4

May 2021

### Bachelor of Technology (BTech) in Computer Science

Amrita Vishwa Vidyapeetham, Coimbatore, India

Jun 2017

## SKILLS

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**Programming Languages:** Python, C++, C, Java, C#, MATLAB, Shell Scripting, JavaScript

**Big Data:** Hadoop, PySpark, SparkSQL

**Data Visualization Tools:** Tableau

**Databases:** MySQL, Oracle SQL 11g, MongoDB

**Libraries:** Pandas, Pytorch, NumPy, SciPy, Seaborn, Matplotlib

## WORK EXPERIENCE

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### Graduate Research Assistant at UNCC, Charlotte

Aug 2020 - May 2021

- Curated and analyzed the undergraduate student data at UNCC to provide actionable insights into student success and proactively identify students at high risk

### Associate Developer, Robert Bosch, Coimbatore, India

Jul 2017 - May 2019

- Identified and created comprehensive test code that helped in the release of the Bluetooth, Maps, and WiFi functionalities in the Apple Carplay and AAUTO products for the customers in Germany as well as Japan which helped to bring downtime to less than 10%
- Accelerated the collection and analysis of logs using DLT (Diagnostic Log and Trace) which helped in reducing the time spent on resolving an issue by 54%

### Data Analyst Intern, Infogix Inc., Bangalore, India

Jun 2016 - Jul 2016

- Improved data quality and applied end-to-end analytics to predict the premium price for an insurance policy of a company which helped in increasing revenue by 22%
- Gained experience in performing data validations and reconciliation using the Infogix Assure tool

### Software Developer Intern, Voxtron, Dubai, UAE

Dec 2015 - Jan 2016

- Reduced the issue resolution time by building an application to route issues to the appropriate department using a multi-class Logistic Regression model having an accuracy of 89%
- Designed an IVR (Interactive Voice Response) system for a customer care company based out of Dubai that minimized dependencies

## PROJECTS

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### INGV Volcanic Eruption Prediction [Python, Scipy, Sklearn, LightGBM]

- Developed a Light Gradient Boosting Machine (LightGBM) model to predict the eruption time of a volcano based on the competition conducted by Kaggle with an accuracy of 85% (<https://www.kaggle.com/c/predict-volcanic-eruptions-ingv-oe>)

### Visual Amber Alert System [Python, OpenCV, EasyOCR]

- Built a visual recognition system to easily identify the license plate numbers of a car in an image with the intent of quickly identifying the vehicles during an Amber alert
- Utilized OpenCV techniques to extract the relevant region and further process it using EasyOCR to achieve an accuracy of 81% on a complete match and an accuracy of 93% on a minimum of 60% partial match on the license plate numbers

### Decay Analysis from Dental X-Ray Images [MATLAB]

- Implemented a machine learning model using the SVM algorithm which achieved an accuracy of 88 % in the identification of caries in a tooth with a limited data set of 280 X-Ray images
- Reduced the effort with a 50% improvement in the diagnosis of patients and is being currently used at Amrita Hospital at Kochi, India

### Text Sentiment Analysis [Azure Databricks, PySpark]

- Developed an ETL pipeline using Microsoft Azure Databricks to retrieve tweets and determine if a particular tweet contained objectionable content
- Engineered a machine learning model using a Naive Bayes classification algorithm comprising a feature set of bigrams which was able to achieve an accuracy of close to 91%

### Mentor/Apprentice Management Application [Angular JS, Express.js, MySQL]

- Designed and developed an application which would aid in the training of new employees joining a company which would help in saving up to 60% of the time while reducing the cost incurred by a company
- Implemented various features which included a two-way messaging system, feedback from mentors, and apprentices for review and scheduling meetings between them