NIKHIL KESWANEY

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EDUCATION

Rochester Institute of Technology Aug. 2017 - Dec. 2019
MS Computer Science 2019
Coursework: Advanced object oriented programming concepts, Computational problem solving, Foundation of computer science theory, Bio inspired intelligent systems, Analysis of algorithms, Introduction to big data, Foundations of parallel computing, Advanced algorithms, Foundation of intelligent systems.
CGPA: 3.70/4.00

University of Mumbai Aug. 2013 - Aug. 2017
BE Computer Engineering 2017

SKILLS

PROGRAMMING LANGUAGES: Python, Java, C, R, C#, Haskell
DATABASE DEVELOPMENT: MySQL, Oracle, Microsoft SQL Server
WEB TECHNOLOGIES: HTML, CSS, JavaScript
IDE/TOOLS: RATTLE, Arduino, Unity 3D, KEIL, Android Studio

EXPERIENCE

Vitech Systems Group Inc., *Software Developer Intern.*, United States of America. June 2018 - Aug. 2018
Technologies used: *Python, Java.*
• Redesigned and reimplemented Vitech's testing module ART(Automated Regression Testing) in python, reducing the CPU overhead, reducing the start-up by 50% as it leveraged Python-based architecture which also gave Vitech the capability of unit testing.
• Developed a conversion script which gave ART an additional functionality to convert different test case syntax to ART syntax.

Digital Systems, *Intern*, India Oct. 2015 - Jan. 2016
Technologies used: *Embedded C.*
• Designed and developed a Thermal Printer using ARM-STM32F100 microcontroller in Keil IDE which operated on two modes fast printing and power saver mode.
• The power saver mode reduced the power consumption by a total of 50% by reducing the number of thermal points used.
• The fast mode used a DMA bus instead of interrupt based I/O making it faster by a factor of ~3x.

PROJECTS

Dutch or English? Nov. 2018 - Dec. 2018
Technologies used: Python.
• Developed a language recognizer that can recognize if given a single sentence or a series of sentences recognizes whether it is Dutch or English.
• Used the decision tree model for creating the language recognizer and received an accuracy of ~80%.
• Applied the meta-algorithm AdaBoost using the decision tree which then increased the accuracy of the model to ~87% because it creates multiple decision trees and predicts the answer by taking a weighted average of all the decision trees.

Email Classification Sept. 2018 - Dec. 2018
Technologies used: Java.
• Created an email classification system in which the emails automatically get classified as spam or ham (not-spam) using the K- nearest neighbor algorithm.
• The co-ordinate of each email was determined by the TF-IDF(Term Frequency and Inverse Document Frequency) numerical statistic and used the euclidean distance to find out the similarity between emails.
• Using all of it together gave an accuracy of ~80%.
• Designed a parallel architecture for this software to achieve ~94% strong scaling and ~98% weak scaling.

Analyzing Indian Premier League Dataset. Mar. 2018 - Apr. 2018
Technologies used: R, Rattle, MySQL.
• Cleaned and normalized the dataset in SQL Server Management Studio.
• Analyzed Ball by Ball data of the 2008-2017 seasons. Analyzed each team performance, player performance and other factors like away matches, home matches and created a formula to predict which team is more likely to win the match.
• Checked the correctness of the formulae which turned out to be 83%.

Virtual Reality Educational Application. Dec. 2016 - Mar. 2017
Technologies used: *Unity 3D, Google VR SDK, C#.*
• Developed interactive virtual reality scenarios which facilitate a better understanding of subjects for school students by giving them a real feel for the environment they are learning about.
• Used techniques like gaze input, and head movement to interact with the virtual environment.

Warehouse Management System. Dec. 2016 - Mar. 2017
Technologies used: *MySQL, C++, Arduino UNO, Java PHP, HTML, CSS.*
• Introduced RFID in inventory management replacing the traditional barcode scanning reducing the time taken by a factor of (~100x).
• Designed an e-commerce website where people can order according to the availability of the product.
• Developed an administrative side where the order is prepared and a bill for the customer is also generated.