AMAAN AKHTARALI MODAK

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COMPUTER SCIENCE PROFESSIONAL

A computer science graduate fresher eager to begin an entry-level position in data science. A Master's degree and summer work experience in software development provide a solid basis on which to build my experience and contribute to your company. Proficient in object-oriented programming in Java, C++, MATLAB, Python, HTML5, JavaScript and CSS, data technologies such as Hadoop, SQL, Solr, and code repositories like Git.

EDUCATION

Master of Science, Computer Science and Engineering   **Feb 2018**
University at Buffalo, State University of New York   GPA: 3.55/4.00

Bachelor of Engineering, Computer Engineering   **June 2015**
University of Mumbai, India   GPA: 4.00/4.00

Relevant coursework: Analysis of Algorithms, Information Retrieval, Computer Security, Computer Vision, Introduction to Machine Learning, Software Engineering Concepts, Data Mining and Bioinformatics.

PROFESSIONAL EXPERIENCE

Graduate Student Assistant, University of Buffalo, Buffalo, NY, May 2017 – September 2017.
Project: eGuru Learning Software

- Led a team to design, develop and test an examination tool software, to aid the department of Civil Engineering to conduct tests and automate the process of grading, using Java, Swing, Junit, Git and Eclipse for the process.
- Interacted with the clients and the project manager to gather the technical and design requirements, and liaised with the product team to identify new requirements and manage costs and schedule.
- Solved the problem of manual grading mistakes, reduced the time taken to prepare and grade the tests by 50%, and achieved 99% accurate evaluation results.

Consultant Instructional Technical Writer, Praxis Interactive Services, Mumbai, India, January 2016 – July 2016.

- Worked in a team of instructional writers in the mathematics and testing department to design the syllabus and questions for school students of Grade 1-10 in the US
- Coded and performed testing and debugging on the front-end website for the clients.
- Created educational lessons and tests based on the requirements conveyed to us by the clients.

ACADEMIC PROJECTS

eGuru Learning Software:

- Led a team to design, develop and test an examination tool software, to aid the department of Civil Engineering to conduct tests and automate the process of grading, using Java, Swing, Junit, Git and Eclipse.
- Interacted with the clients and the project manager to gather the technical and design requirements, and liaised with the product team to identify new requirements and manage costs and schedule.
- Developed the software using Agile methodology and followed the best practices of SDLC.
- Eliminated the problem of manual grading mistakes, reduced the time taken to prepare and grade the tests by 50%, and achieved 99% accurate evaluation results.

Emotion Based Music Player:

- Designed a music player in MATLAB and Java, which would automatically suggest songs based on the user's emotions detected using facial expression recognition, captured using the user's camera.
- Achieved an overall accuracy of 83% in capturing and identifying the correct facial expression of the user.
- Project involved using SVM to classify the emotions and using the JAFFE database as the training data.

Flix2See Movie Review Website:
- Designed a movie review website where the user can access information about any movie in the database, and provide a personal review.
- Used HTML5, CSS, Bootstrap and Javascript for the front-end, and PHP and MySQL for the back-end development.

K-means Clustering Using Hadoop Map Reduce:
- Configured a single-node Hadoop cluster and implemented MapReduce K-means, along with the other clustering algorithms in Python.

Implementation of classification and regression in machine learning:
- Implemented classification and regression algorithms such as Gaussian Discriminators (LDA and QDA), Linear and Non-linear Regression, Ridge Regression, Logistic Regression, Support Vector Machine to classify handwritten digit images using Python, numPy, and sciPy.
- Achieved a testing accuracy of 97% using SVM for the given dataset.

Classification Algorithms in Bioinformatics:
- Implemented k-Nearest Neighbor, Naïve-Bayes, Decision Trees, Random Forests and Boosting in Python.
- Adopted 10-fold Cross Validation to evaluate the performance of all methods on the provided datasets in terms of Accuracy, Precision, Recall, and F-1 measure.

Handwritten Digits Classification using Machine Learning:
- Implemented a Multilayer Perceptron Neural Network and evaluated its performance.
- Compared the performance of the neural network against a deep neural network using the TensorFlow library.

TECHNICAL SKILLS
- Computer Skills: Windows OS, Linux OS, Microsoft Office (Excel, Word, PowerPoint), Database and Email Systems.
- Programming Skills: Java, Python, MATLAB, Verilog, Git, HTML5, CSS, PHP, SQL, Spring, Hadoop, and Eclipse.
- Languages: English, Hindi, Marathi, Urdu, and Arabic.

LEADERSHIP EXPERIENCE
Student Manager, Ellicott Food Court, Buffalo, NY, September 2016 – December 2017.
- Started work as a student employee at certain stations in the food court.
- Based on the quality of my work, I was promoted to student manager and made responsible for the proper daily functioning of the various stations in the entire food court along with other managers.

VOLUNTEER EXPERIENCE
Member, Helping Hands NGO, Mumbai, India, June 2016 – July 2017.
- Organized blood donation drives, educational workshops for underprivileged children in the city, and sports day for children from impoverished areas.

Technical Secretary, Rizvi College of Engineering, Mumbai, India, July 2014 – May 2015.
- Managed the technical events held during the inter-college festival.
- Organized technical workshops such as Unity game development workshop, Robotics workshop and Cyber security workshop for the students from the Computer Science and Electronics engineering fields.
- Student council member and acted as a representative for the students and interacted with the professors and the dean to ensure the best solution to any student-related problem.
- Coordinated various placement drives along with the Technical Placement Officer and interacted with various company representatives before the campus job fair.