Nomair Yawar Bhatti

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➤ Education

Purdue University, West Lafayette, IN — ***Graduated: May 2023***

Bachelor of Science in Computer Engineering

- Relevant Coursework: Data Structures and Algorithms, Object Oriented, Operating Systems, Computer Security, Artificial Intelligence, Python for Data Science, Discrete Mathematics, Software for Embedded Systems
- Cumulative GPA: 3.57/4.00
- Dean's List and Semester Honors — ***Fall 2019, Spring 2020, Fall 2020, Spring 2022, Fall 2022***

➤ Technical Skills

- **Programming/Markup Languages:** C/C++, Python, Java, MATLAB, HTML, XML, CSS, Javascript, LaTeX
- **Frameworks/Softwares:** React.js, Node.js, Express, MongoDB, MySQL, Github, Jira, Android Studio, VS Code

➤ Work Experience

Digital.ai, Lafayette, IN — ***May 2022 – Aug. 2022***

Software Engineer Intern – Application Security Team

- Developed a native Android mobile application in XML, Java and C++ using Android Studio
- Utilized RESTful APIs to assist with user navigation and display weather conditions at destination
- Encrypted the application customer database with AES to avoid threat actors to gain access to confidential data
- Followed the agile development cycle and Jira to estimate story points and track mobile application progress
- Participated in code reviews to make the code quality based, sustainable and easy to understand for the customer

iD Tech, Campbell, CA — ***July 2021 – Aug. 2021***

Programming Instructor (Remote) – Python for Gaming and Machine Learning

- Prepared lesson plans to conduct weeklong coding sessions at a STEM camp for 20+ individuals
- Discussed effective teaching strategies with instructors weekly to deliver quality oriented instruction
- Provided instruction on object-oriented programming, neural networks, numpy, random and pygame libraries
- Evaluated student performances by work on the final project, various coding challenges and presentations

Undergraduate Teaching Assistant – College of Engineering, Purdue — ***Jan. 2021 – May 2023***

ECE 40400 – Computer Security (Spring 2023), ENGR 13200 – MATLAB Programming (Spring 2021)

- Enhanced students' understanding on communication protocols, cryptographic principles and techniques
- Assisted with algorithm development, mathematical modeling and debugging for 250+ students during office hours
- Graded and provided feedback on theoretical and programming assignments, exams and final project milestones

➤ Projects

Covid Vaccine Management System — ***Dec. 2021 – Jan. 2022***

C Individual Project (https://github.com/bhattin82/Covid-Vaccine-Management-System)

- Stored community data in a singly linked list to perform add, update, search, delete and display operations
- Prioritized individuals with respect to their age using a sorting algorithm to receive a vaccine in a timely manner
- Allows entry to database with the correct login credentials and performs file handling according to user need

New York City Bike Traffic Data Analysis — ***Nov. 2021 – Dec. 2021***

Python College Project (https://github.com/bhattin82/New-York-City-Bike-Traffic-Data-Analysis)

- Utilized pandas to organize bike data in tabular format for data manipulation and statistical calculations
- Performed linear, logistic regression and K-nearest neighbors to determine coherence in bike traffic data
- Generated confidence intervals, confusion matrix, scatter plots, bar charts, histograms for data comprehension
- Created a detailed report to communicate model performance and the derived conclusions for bike traffic

Brain Tumor Detection Machine Learning Model — ***May 2021 – June 2021***

Python Individual Project (https://github.com/bhattin82/Brain-Tumor-Detection-Machine-Learning-Model)

- Applied categorical encoding to transform categorical variables for different tumor types into a numerical form
- Developed and trained a convolutional neural network in TensorFlow to predict 3 types of brain tumors
- Visualized data to better analyze model efficiency using matplotlib and seaborn libraries
- Attained a 91 percent accuracy in predicting meningioma, pituitary, glioma and no tumor diagnosis