Abhi Vinnakota

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EDUCATION

University of Illinois at Urbana-Champaign   Expected: May 2024
Bachelor of Science in Computer Science   *GPA: 4.0/4.0*

Relevant Coursework: Data Structures and Algorithms (In-Progress), Discrete Structures, Introduction to Computer Science II (C++), Linear Algebra, Introduction to Computer Science I (Java)

EXPERIENCE

Web Developer   Oct. 2021 – Present
University of Illinois at Urbana-Champaign   *Urbana, IL*
- Developed story-telling and compelling data visualization notebooks for a professor's research using d3.js
- Built a full-stack web application from scratch using HTML, CSS and JS to showcase d3 data visualizations
- Integrated 12 different data visualization projects into the website to present the research in a clean format

Data Science Intern   Sep. 2020 – Sep. 2021
Northwestern University   *Evanston, IL*
- Analyzed technology adaptations in human-AI teams for a study funded by the Army Research Laboratory
- Generated visualizations using R ggplot and tidyr packages to demonstrate the success of human-AI teams
- Identified the team processes and properties that are associated with success in human-AI teams through the analysis of physiological and behavioral data from experimental team scenarios

Software Engineer Intern   June 2019 – August 2019
Caterpillar   *Peoria, IL*
- Implemented backend processes using the Java Spring framework to ensure proper data flow to the dealer website
- Utilized SQL to retrieve customer data from the Dealer Portal and generated reports for two business analysts
- Constructed the user interface of the dealer management order form using HTML, CSS, and JavaScript

PROJECTS

Mehta Data Lab Website | *HTML, CSS, JavaScript*   Oct. 2021 – Jan. 2022
- Developed a full-stack web application using HTML, CSS, and JavaScript for d3 data visualization notebooks
- Imported d3 notebooks from Observable Notebook and integrated them into statically loaded web pages
- Created a pipeline to host Observable Notebooks externally in a simple and efficient manner

Breast Cancer Image Classification | *Python, Tensorflow, Matplotlib, Sci-kit learn*   April 2021 – May 2021
- Trained a deep learning model on a dataset of 1127 breast cell image samples using Tensorflow Keras
- Used image detection and a deep learning model to perform classification and predict whether breast cell image samples were benign vs. malignant with a 90 percent accuracy

Stroke Prediction Analysis | *Python, Pandas, NumPy, Matplotlib, Sci-kit learn*   March 2021 – April 2021
- Predicted stroke occurrence with a 94 percent accuracy after training a KNeighbors model on 5110 stroke samples
- Ran an SVM regression model to predict the average glucose level of a patient based on stroke occurrence, age, history of hypertension, and history of heart disease with a mean absolute error of 29.5 mmol/L

FBLA Awards Program Tracker | *Java, MySQL*   Jan. 2020 – May 2020
- Developed a GUI using Java with CRUD functionality to track volunteer hours for the FBLA awards program
- Utilized MySQL to store data in a relational cloud database and Java for the backend and GUI
- Submitted the application to the FBLA Coding and Programming competition and won 1st Place in Illinois and 5th Place at Nationals

TECHNICAL SKILLS

Languages: C++, JavaScript, Python, Java, HTML/CSS, R
Frameworks: React, Node.js,
Libraries: Pandas, NumPy, Tensorflow, Matplotlib, Sci-kit learn