Varun Venkatesh

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EDUCATION

Bachelor of Science, Computer Science   August 2019 – May 2023
University of Pittsburgh, Pittsburgh, PA
- GPA: 4.0/4.0
- Dean's List Recipient

Relevant Coursework: Practical Artificial Intelligence, Algorithm Implementation, Data Structures, Computer Organization, Applied Statistical Methods, Discrete Mathematics, Calculus II

EXPERIENCE

Teaching Assistant   August 2020 – Present
University of Pittsburgh, Pittsburgh, PA
- Instructing a weekly class of 25 students for Intermediate Programming, in a lab format
- Preparing and demonstrating material in class, as well as grading programming assignments

Software Intern   May 2020 – August 2020
Xia Laboratory, University of Pittsburgh, Pittsburgh, PA
- Designed a tool that categorizes biological samples stored in the lab by generating QR codes tailored to the type of samples collected, using JavaScript and HTML
- Procured and handled existing data from databases to improve dynamic collection and usage
- Automated processes that allowed weekly report generation in Tableau, resulting in more effective visualization of patient data and the optimization of a redundant weekly task

SKILLS

Languages: Java, Python, Assembly, JavaScript, HTML
Frameworks/Technologies: TensorFlow, Keras, Pandas, NumPy, Git, Flutter, Google Cloud Platform, Tableau

PROJECTS

Calbot   git.io/JUEPW
- Made a Calendar bot that uses data scraped from course details to deliver regular assignment-based reminders to 250 people
- Created in Python, the bot posts reminders through the GroupMe API

Custom Neural Network   git.io/JUEPG
- Designed an informal infrastructure in Python that creates customizable Neural Networks from scratch and uses backpropagation and stochastic gradient descent to make the networks learn
- This infrastructure was then implemented and used to classify handwritten digits

2020 Election Vote Prediction   git.io/JUEPM
- Developing a web application that takes in user information and uses Machine Learning to predict their choice in Presidential candidate
- Implements a model that was built using Keras and TensorFlow and trained on 2016 election data

Pittsburgh's Best Neighborhood   git.io/JU0Og
- Collaborative project that ranks neighborhoods in Pittsburgh by analyzing regional data based on parameters such as green space, population density and crime data. Made using Pandas

Twitter, COVID and Mental Health
- Currently working on a collaborative project aimed to correlate negative tweets and politically charged COVID-19 tweets to a relatively worsened state of mental health, using Natural Language Processing

ACTIVITIES

Competitive Programming   August 2018 – Present
- First place at two programming competitions in Bangalore and top 25 in HP CodeWars India, in 2018
- 1 of 9 from the University of Pittsburgh to compete in International Collegiate Programming Competition 2019