Maanya Shanker

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EDUCATION

Bachelor of Science in Computer Science and Minor in Information Science Aug 2021 – Dec 2024
University of Pittsburgh GPA: 3.85/4.00
Relevant Courses: Algorithms and Data Structures 2, Computer Architecture, Operating Systems, Data Analytics

High School Diploma Aug 2017 – May 2021
Thomas Jefferson High School for Science and Technology GPA: 4.12/4.00
Relevant Courses: Mobile Application Development, Artificial Intelligence, Machine Learning

RELEVANT EXPERIENCE

MITRE May 2023 – Present
Software Engineer Intern Mclean, VA
Tools/Technologies: VSCode, Tensorflow, Python, OPA Rego, Google Workspace, Sphinx, Figma

- Implemented a Multilayer Perceptron to detect audio deepfakes using human generated features
- Achieved an AUC score of 82.5 percent
- Collaborated with a team to fix GitHub issues for SCuBAGoggles using OPA Rego, Python and the Google API
- Initiated work on issues that had been put on the backburner for their difficulty
- Created a wireframe for a website to display security vulnerabilities and how to overcome them in Google Workspace

University of Pittsburgh November 2022 – Present
Peer Tutor and Student Success Leader Pittsburgh, PA

- Tutor university students 1-on-1 for classes that range from introductory CS classes to operating systems
- Clarify difficult concepts and provide aid on projects, labs, and homework assignments
- Work with Student Success to help put events together and mentor students

Clango, Inc. Nov 2021 – Aug 2022
Software Developer/Tester Intern Arlington, VA
Tools/Technologies: VSCode, DBeaver, SQL Server Management Studio, Bootstrap, ChartJS, JavaScript, HTML, CSS, Coldfusion

- Improved a web application for employees to see a snapshot of what they should work on for the month
- Analyzed the data available and created charts to analyze employees' performances for upper management in collaboration with another intern and a senior developer
- Completed regression and sanity testing while software was being developed, ensuring all cases were covered
- Actively collaborated with 1-5 clients to develop of a database in order to combine previous datasets

PROJECTS

Reducing Bias in Court Case Verdicts with Support Vector Machines Aug 2020 – May 2021
High School Senior Research Project Alexandria, VA
Tools/Technologies: Pandas DataFrame, Sci-kit learn library, Python, Westlaw Database

- Implemented a linear support vector machine to determine court case verdicts and compared if accuracy was improved with a Gaussian Radial Basis Kernel Function (RBF)
- Developed a database of handpicked court cases from 2017 to 2020 mapped to their verdicts
- Achieved a 73.33% accuracy without the RBF and a 66.6% with the RBF

TECHNICAL SKILLS

Languages: Java, Python, OPA Rego, Mips, C, Coldfusion, SQL, R, XML, HTML, CSS, JavaScript

Tools/Frameworks: Bootstrap, ChartJS, Android Studio, Pandas, Sci-kit learn, Tensorflow

Suitability/Fitness

DHS CISA

DHS Science and Technology