Pooja Pathak

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EDUCATION

UNIVERSITY OF CALIFORNIA, SAN DIEGO
B.S Cognitive Science, Machine Learning and Neural Computation
Minor in Computer Science
Exp. 2021 | San Diego, CA
GPA: 3.91

LINKS

Github: **poojapathak1725**
LinkedIn: **pathakpooja**

COURSEWORK

Algorithms and System Analysis
Advanced Data Structures
Computer Architecture
Linear Algebra
Data Science in Practice
Discrete Math
Unix and Scripting

LANGUAGES AND FRAMEWORKS

Proficiency:
- Python
- C++
- Java
- C
- Numpy

Exposure:
- AWS
- OpenCV
- TensorFlow
- SQLite
- x86 Assembly
- Perl
- HTML

Familiar:
- Javascript

EXPERIENCE

CENTER FOR APPLIED INTERNET DATA ANALYSIS   Research Software Intern
June 2020 - Present   San Diego Supercomputer Center, CA
- Developed scripts to analyze raw Internet network traces and present data in programmer desired formats using Python and Perl.
- Parsed large datasets of ASes, relationships, links, paths and prefixes to create new datasets to analyze the growth of IPv4 and IPv6 ASes.

EARTHSENSE INC.   Software Engineering Intern
July 2019 – Sep 2019   Champaign, IL
- Researched Computer Vision and Machine Learning algorithms to recognize key plant traits through an autonomous robot platform.
- Deployed a Tensorflow ML model on an FRCNN to detect and count corn stands.
- Improved accuracy of the training model by implementing a grid search algorithm to optimize hyperparameters.
- Worked on image calibration and radial undistortion using OpenCV.
- Worked in onsite field research - assisted with LIDAR testing and data collection and labeling.

DE ANZA COLLEGE   Teaching Assistant
April 2018 – April 2019   Cupertino, CA
- Tutored and assisted students with Data Structures such as Arrays, Linked Lists, Stacks, Queues, Hashtables, Graphs, and Trees in Java.

PROJECTS

RACIAL DISCRIMINATION BY LAW ENFORCEMENT   Software Developer
April 2020 – June 2020   San Diego, CA
- Analyzed law enforcement data from San Diego County to determine whether an individual's race affects action taken after a police stop.
- Plotted informative data visualizations using seaborn and matplotlib.
- Performed chi-square tests of independence between race and action taken for different reasons for police stop.
- Trained logistic regression models to predict whether race predicts action for different reasons for stop.
- Assisted in writing a complete report of analysis and conclusion in a concise Jupyter Notebook.

GITHUB JOB LISTINGS FILTER   Software Developer
Jan 2019 – March 2019   Cupertino, CA
- Developed a Python application for extracting, filtering and viewing job postings on Github in a user-friendly GUI.
- Implemented data retrieval with multithreading and multiprocessing.

TECHNICAL ORGANIZATIONS

WOMEN IN CS   Co-founder
Feb 2017 – Feb 2018   De Anza, Cupertino
- As co-founder of the WiCS (Women in CS) at De Anza, I organized and volunteered for the 'WiE Women in Engineering Conference' held at SJSU in 2017.
- Hosted panels inviting FAANG employees to talk about their experiences.
- Established weekly 'Common Interview Questions' discussions within the club.