Soham Saha

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EDUCATION

University of Illinois Urbana-Champaign
BS in Computer Science
Minor in Statistics
May 2021
GPA: 4.00/4.00
Dean's List (All Semesters)

COURSEWORK

Applied Machine Learning
Numerical Methods
Systems Programming
Data Structures
Computer Architecture (In Progress)
Algorithms & Models of Computation
Data Mining
Methods of Applied Statistics

SKILLS

PROGRAMMING

Expert:
Python • Java
Proficient:
C • C++ • C# • HTML/CSS • JavaScript
Prior Experience:
R

TOOLS

ASP.NET • TensorFlow • PyTorch • Scikit-learn • OpenCV • Pandas • jQuery • D3.js

DATABASE LANGUAGES

SQL Server

SOCIETIES

BIOMEDICAL ENGINEERING SOCIETY

Engage in community outreach and technical

WORK EXPERIENCE

State Farm | Champaign, IL

Enterprise Technology Intern | May 2019 – Present

- Developing an event registration web application using ASP.NET with MVC framework for the Philanthropy department to track employee involvement.
- Designing an event registration database on SQL Server for generating quarterly analytics with Python and data visualizations with D3.js to highlight trends in attendance and hours serviced.

Jensen Lab | Urbana, IL

Undergraduate Researcher | September 2019 – Present

- Building automated solutions for bacteria transformation experiments by developing computer vision algorithms for colony picking and designing protocols on an Opentrons pipetting robot to carry out the experimentation.

UIUC Computer Science Department

CS 125 Course Assistant (Intro to CS) | January 2018 – December 2018

- Assisted a section of 36 students through weekly programming labs and held office hours to reinforce concepts including object-oriented programming, data structures, algorithm design, and recursion.

Codifyd | Chicago, IL

Product Development Intern | May 2018 – August 2018

- Built prototypes of REST web services with RESTful and Jersey architectures for cloud-based software.
- Collaborated with data analysts to build taxonomies and schemas from unorganized product data.

PROJECTS

Distracted Driving | June 2019

Created an iOS app using Computer Vision with a team that identifies whether a driver is engaging in distracted driving. A convolutional neural network was built in PyTorch to recognize distracted actions, such as texting, talking to a passenger, doing hair and makeup, etc.

Beats by Dr. Jay | January 2019 – March 2019

Worked on the backend signal processing of an EMG device that converts electrical signals from muscle activity into music. Numerical methods were implemented with Python to produce unique musical notes as midi files in real-time.

Bridge Deterioration Model | September 2018

Modeled the deterioration of bridge elements in varying environments to optimize budget allocations for the Illinois Department of Transportation (IDOT). Discrete density functions were transformed into stochastic matrices to create deterioration curves.

Disease Detector | February 2018 – March 2018

Created an Android application that informs users about the current state of airborne diseases in their local area. Sickness data is mined from Twitter posts to produce markers and a heatmap of flu symptoms onto a Google Maps API.