Soham Saha

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Education

University of Illinois at Urbana-Champaign

Computer Science, Minor in Statistics   May 2021
Dean's List   GPA: 4.00/4.00

Related Coursework:

Data Structures	Computer Architecture	Numerical Methods
Statistics and Probability I	Applied Machine Learning	Systems Programming

Projects

Bridge Deterioration Model   *September 2018*
Modeled the deterioration of bridge elements in varying environments to optimize budget allocation for the maintenance of bridges across Illinois. Discrete density functions were created from historical data sets and transformed into stochastic matrices to create deterioration curves. This project was presented at PYGHack 2018 and received an honorable mention from the Illinois Department of Transportation. Language used was **Python**.

Disease Detector   *February 2018 – March 2018*
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. The application was presented at University of Illinois' annual Engineering Open House, a project symposium that draws over 20,000 people to campus annually. Languages used were **Java** and **Python**.

Forever21 Web Scraping   *December 2017*
Created a program that inspects Forever21's clothing category webpages and generates a CSV organizing the clothing data. A ML classifier was created to predict what category of clothing a product would be in after considering final sale, product ID, and list price. Languages used were **Python** and **HTML**.

Work Experience

UIUC Bioengineering Department   *Urbana, IL*
Undergraduate Researcher, Jensen Lab   *September 2018 – Present*
- Study how the bacteria S. sobrinus plays a role in cavity formation using computational techniques
- Design Python protocols on an Opentrons pipetting robot to assist in understanding bacterial genomes

UIUC Computer Science Department   *Urbana, IL*
Course Assistant, CS 125: Intro to Computer Science   *January 2018 – December 2018*
- Assisted a section of 36 students through weekly programming labs
- 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*
- Collaborated with data analysts to build taxonomies and schemas from complex product data
- Built prototypes of REST web services with RESTful and Jersey architectures for cloud-based software
- Gained experience in software design and understanding product development workflows

Dr. Rubin's Mini-Medical School   *Plainfield, IL*
Teaching Assistant   *January 2017 - March 2017*
- Led a group of sixty-four students each week through hands-on medical experiences including suturing, intubation, physical exam, and casting
- Extended knowledge of anatomy and medicine beyond the classroom to learn how to properly use common medical instruments

Technical Skills

- **Languages**: Java, C++, Python, R, HTML, and CSS
- **Applications**: MS Excel, Eclipse, Android Studio, Jupyter Notebook, and RStudio