Neel Homchowdhury

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EDUCATION

The University of Texas at Austin - Austin, TX

08/16 - 05/20

Bachelor of Science and Arts in Neuroscience

    Certification in Scientific Computation and Data Sciences

Relevant Coursework: Biostatistics, Scientific Programming, Upper Level Calculus, Linear Algebra, Computational Biology

University of Michigan at Ann Arbor — Ann Arbor, MI

08/20 - 05/21

Master of Applied Data Science

EXPERIENCE

Preston Lab - Austin, TX

09/17 - 06/19

Senior RA

- Conducted neuro-psych testing for both adult and child participants
- Collected and analyzed neuro-psych data, and direct neural data from MRI scans
- Wrote Python scripts for the purposes of analyzing socioeconomic data from participants
- Created a series of stimuli for usage in future studies, using 3D software

Kishore Gawande - Austin, TX

06/18 – 04/19

Data Sciences Research Assistant

- Aided in analyzing various government voting patterns in order to determine the effect of the "China Shock" on governmental voting patterns
- Used SQL, Python, and R to analyze various segments of congressional voting data, often converting BSON to JSON and working with mongo DB

UCSF Young Adult and Family Center - San Francisco, CA

07 /13- 07/14

Intern at Dept. of Psychiatry

- Shadowed Dr. Kim Norman throughout the Department of Psychiatry
- Worked with a group of interns to develop a "High School Survival Guide", a podcast containing helpful tips for teens in high-school and their first year of college
- Worked with Dr. Norman about the applications of CBT (Cognitive Behavioral Therapy), and its specific function in treating children with various learning disorders

FRI Bugs-in-Bugs Lab, Austin, TX

01/17- 05/17

FRI Research Assistant

- Ran and Analyzed PCRs, and their subsequent genetic data for various insect species

- Performed bacterial assays for a variety of insect species
- Collected insects
- Set up a series of experiments to understand social and micro-biotic behavior of various insect species
- Created a project proposal centered around restoring microbial properties in bees

WellHive - Austin, TX

06 /19 - Present

Data Science Intern
- Researching and identifying the ontology and taxonomy of health care terminology available from various sources such as CMS, SNOMED, RxNORM
- Developed scripts in Python to transform the above data available in diverse formats such as text files, CSV & XML to prepare them for uploading into a graph database of WellHive's health Analytics product
- Creating a terminology graph in Neo4j with multiple connections among the various terms and their relationships with each other as well as connecting it to other health data for real-time analytics

ACTIVITIES & LEADERSHIP

DKMS UT Chapter - Austin, TX

09/16 - 06/18

Vice President of Logistics
- Worked with the Austin chapter of DKMS to register over 3000 potential bone marrow donors to the international registry
- Helped to advertise donor registration events, package samples, and ensure that the samples were properly received by the testing facilities

Afterglow ATX - Austin, TX

08/18 - 04/18

Program Coordinator
- One of the inaugural members of the first music magazine at UT Austin

- Ran Profit-shares, booked bands, and set-up 3 live events showcasing local talent

- Promoted the magazine at a variety of live shows, resulting in almost 35000 total page hits over the course of 8 months
- Raised almost $8,000 in profit

Capital Community - Austin, TX

01/17 - 01/18

Volunteer
- Lead financial literacy programs aimed at educating children between the ages of 4-10 in low-income areas of Austin

Events and Entertainment at UT Austin: HEADLINERS - Austin, TX

08/16 - 06/19

Budgets and Analytics Officer
- Put on a variety of comedy and music shows sponsored by the university throughout the course of the academic year

- Managed a $90,000 budget for the purposes of bringing artists to campus
- Had a strong hand in managing/sending out artist contracts and maintaining offers that would remain within the budget
- Created yearly presentations justifying the usage of said funds using computed metrics and figures demonstrating the level of engagement said events had amongst the UT student population

SKILLS

Technical /Computer Skills:
- High level of experience with Python
- High level of experience with C++
- High level of experience with R
- High level of experience with TensorFlow
- High level of experience with the entire Office Suite (Word, Excel, PowerPoint)
- Experience using SQL
- Experience with Java

Other Skills: Experience running PCR's and working with bacteria. High level of experience running whole-cell patch clamps of neuronal rat brain slices, as well as inducing various drug washes onto these slices and measuring their effect on the neuron.

Languages: English, Bengali, Hindi, French. Limited Proficiency in Italian and Spanish.

Certifications / Professional Memberships / Exams: Level 1 Certified MRI researcher, Python3 Programming Specialization (Coursera), AI For Everyone (Coursera), Natural Language Processing in TensorFlow (Coursera)

PROJECTS

- Currently working with a digital healthcare company to create a machine learning system for the purpose of expediting pre-triage/triage processing

THESIS

- Investigation of whether specific artists within a musical genre have similar following's on various social media websites, and whether or not this commonality can be used to find up-and-coming artists with a similar following demographic