Karan Naik

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EDUCATION

Rutgers University, New Brunswick, New Jersey **May 2017**
Bachelor of Science in Computer Science
Relevant Courses: Computer Applications for Business, Numerical Analysis, Scientific and Technical Writing, Linear Algebra (using MATLAB), Databases, Computer Security, Networks

SKILLS

Languages: Java, Python (and libraries: NumPy/SciPy, Matplotlib, Pandas), SQL, VBA, C
Technology: Git, AWS/GCP, LAMP, Relational Databases, Excel (Xlookup, Index/Match)

EXPERIENCE

Computational Brain Lab (COMBRA), Rutgers University
Research Assistant (part-time)/Independent Study **Jan 2017 – May 2020**
- Contributed to machine learning research and neuron simulation research using Python

Summer Research Assistant (NIH Sponsored) **May 2016 – Aug 2016**
- Applied signal processing on electrode recordings of DBS surgery in Parkinson's patients using MATLAB

Rutgers Quant Finance Club Competition
Project Manager/Lead Developer, "Placed 2nd in Salhotra Quant Finance Challenge" **Sept 2020 – Dec 2020**
- Awarded 2nd of 3 finalist and 17 total teams, for a trading algorithm presentation to Susquehanna International Group
- Managed a team of 4 people to conduct weekly research and biweekly presentation on implantation of trading algorithm
- Implemented a trading strategy using wavelet decomposition and SVM/SVR to forecast stock prices using Python

Self Employed, South Brunswick, NJ
Tutor, College Admissions Advisor **Jan 2010 – Present**
- Taught for the SAT, SAT Subject Tests, high school and college level courses in Chemistry, Biology, Physics, and Calculus
- Help students earn score improvements on the SAT and SAT subject tests from 70th percentile to 90th percentile and students usually saw at least ½ a letter grade improvement in honors, AP, and college level classes

CERTIFICATION EARNED

The Rutgers Institute for Quantitative Biomedicine, Rutgers University with NIH STRIDES
7th Annual Interdisciplinary Quantitative Biology Bootcamp **Jan 2020**
- Earned Certification from AWS and GCP in "Cloud Technologies Best Practices"
- Gained hands-on experience through workshops for data intensive tasks in biomedical research

PROJECTS

Database Project using NYPD Data (Final Course Project) **Fall 2016**
- Developed a dynamically generated site where users can do statistical analysis on NYPD Stop-And-Frisk data
- The webpage used D3.js, with PHP to run queries on a MySQL database, served using Apache, hosted on Digital Ocean

HACKATHONS/VOLUNTEERING

Volunteer at BAPS Temple, Robbinsville, NJ **Feb 2021 - Present**
- Create UI deployed on Crestron touch screens using Typescript, NodeJS

Mentor/Judge: PennApps, HackGT, Technica, DubHacks, TechTogether NY, Boston, Seattle, Atlanta **Fall 2020 – Spring 2022**

Columbia DivHacks – CommConnect for Justice **Fall 2020**
- Created a dashboard using Python and MatplotLib and Jupyter Notebook for a heatmap of crimes compared to police stations using data provided by the city of Chicago on Kaggle

JHU MedHacks – Emotion of the Heart **Fall 2020**
- Used a heart rate sensor and machine learning to associate music to heart rhythm in an attempt to predict calming music for people suffering from anxiety using Ant+, Python, Raspberry Pi, TensorFlow, FFmpeg

HackitShipit – PirateRadio, "Best Hardware Hack Recipient" **Summer 2020**
- Worked independently using a Raspberry Pi to make a FM transmitter and SDR where the Pi acted like a Bluetooth sink and transmitted the audio on a specified band controllable via an Android app

Participant at over 15 hackathons including: SpaceApps, HackRU, HackPrinceton, HackHarvard more listed at devpost.com/knaik94

OTHER TECHINCAL INTERETS: Blog: knaik.github.io, Cybersecurity, IOT, Quantitative Finance