Sagar Sathyanarayanan

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I am an Engineer and NCAA Division I Athlete. I have a unique Masters in Product management. My passion lies in Machine Learning and AI.

EDUCATION

Bachelor of Science, Electrical Engineering
Morgan State University, **2013- 2017**

- Graduated with Magna Cun Laude (**3.65/4.0**).
- Was an integral part of the Men's Tennis team from 2013-2017.
- Was awarded "The Most Improved Player – 2017" in the MEAC.
- Relevant Volunteer work: AIME (Advance Minorities Interests in Engineering.
- Submitted projects in subjects varying from CS, Communications.

Master's, Sports Product Management
University of Oregon , **2017-2019**

- Studying full product lifecycle- ideation to Go To Market.
- Gained knowledge in creation of footwear, apparel via identifying business opportunities, prototyping and pitching to VC's.
- Gained international perspective through industry visits to ISPO Germany, and global brands in China and Japan.
- Gained work experience through internship in Sri Lanka.

Nano Degree, Data Scientist
Udacity, **2019 - 2020**

- Studied to master skills necessary to become a successful Data Scientist.
- Leant Data Science via Python, SQL & Excel to visualize data to answer critical questions.
- Worked on projects created by industry experts to simulate real life Data Science problems.

Nano Degree, Data Structures and Algorithms
Udacity, **2019 - 2020**

- Studied to master, evaluate and assess different data structures and algorithms and implement a solution.
- Leant to solve defined problems related to a particular data structure and algorithm.
- Worked on over 100 data structures and algorithm exercises to get hands-on practice of real-world problems.

Nano Degree, Machine Learning Engineer
Udacity, **2019 - 2020**

- Studied to master skills necessary to become a successful Machine Learning expert.
- Leant Machine Learning via Python to answer critical questions.
- Worked on projects created by industry experts to simulate real life Machine Learning problems.

WORK EXPERIENCE

Data Analyst.
Columbia Sportswear-contract
Portland, USA
Apr 2019 – Oct 2019.

- Analyze data to help assistant buyers on the retail team determine the floor set for the upcoming season.
- Used data science techniques like Pivot tables, Tableau to visualize data for the retail team.
- Used systems like JDA to insert style-numbers, price and coupons for the upcoming seasons.
- Used SQL to get query from the system to better improve the data.

Product Development Intern
MAS Kreeda (Nike Division)
Colombo, Sri Lanka
May 2018 – Dec 2018

- The first international intern at the company.
- Used virtual prototyping and data science to reduce speed to market (TTM timeline) by 71days.
- Worked on the seam-less business model strategy to increase the buy capacity of Kreeda.
- Developed and researched strategies in new categories and innovations to expand the business size from 700 MN to 1 BN by 2023.

Product Manager,
JSS Solutions LLC
Baltimore, Maryland
Mar 2016 – May 2017

- Developed a computer software - sentiment analysis - to assess data from user experiences recorded on Twitter using R. Data Analysis was done using Python and SQL.
- Assessed software categorizes tweets as positive, neutral , or negative in order to find areas if improvement in company's service or products.
- Mrs. Shirley's Cafe was the first client to test the software. It received an average score of 7.5 /10.

University Google Team
Morgan State University
Maryland, Baltimore
Aug 2015 – Feb 2016

- Enlighten students about google products and its advantages to students.
- Conduct seminars and debates about Android and IOS

Engineering Tutor,
Morgan State University
Baltimore, Maryland
Aug 2014 – May 2016

- Taught: Calculus I, II and III, Differential Equations, Signals Systems and Transformations, and Semiconductor Materials and Devices.
- Tutored close to 30 students across a wide range of academic classifications.
- Helped professors in assisting class & part of research set that developed sentiment analysis software.

Tennis coach
Portland Tennis Center
Portland, OR, USA
Jan 2018 – Oct 2019

- Manage a group of athletes for them to compete in tournaments and other tennis related events.
- Help organize and operate tournaments and clinics for tennis enthusiasts.
- Coached high intensity and tournament aspiring tennis players. I was also a hitting partners for regular tournament players.

PROJECTS

- Sentiment Analysis - Published paper ASEE- sentiment-analysis

- EEGR 317: Semiconductors - Final Design Project.

A microphone amplifier, also known as microphone preamplifier is an electronic circuit within a microphone, or aseparate device/circuit that is connected to a microphone. This device is able produce a microphone Sagar Sathyanarayanan 2 signal, which can be processed with equipment. Most microphone signals are too weak to be transmitted with adequat quality. An amplifier increases the signal by providing stable gain while cancelling unnecessary noise. The output voltage of the circuit may be very low.

- EEGR 305: Applied and Theoretical Electromagnetics -Electromagnetic Probes for Side Channel Analysis.

An instrument that are used for measuring the ambient electromagnetic fields using a sensor or a coil is known as an electromagnetic probe. The EMF are obtained using an E- Field sensor or H-Field sensor. The probe is built to find the sensitivity of the circuit, by finding the peak-peak voltage and magnetic field. The output can be seen fluctuating on the screen of the oscilloscope. Magnetic loops are resourceful in determining the magnetic field flowing in a circuit. The magnetic probe follows Faradays Law of magnetic field. Faraday's Law of induction describes how an electric current produces a magnetic field and, conversely how a changing magnetic field generates an electric current in a conductor.

- EEGR 482: Introduction to Cryptography -DomainKey Identified Mail (DKIM)

Abuse of E-Mail by undesirable users causes an exponential increase of E-Mails in usermail boxes which is known as spam. It is an unwanted commercial e-mail or unsolicited bulk E-Mail produces huge economic loss to large scale organizations due to high network bandwidth feasting and heavy mail server processing overload. Statistical spam filters could be used to categorize incoming E-Mails into legitimate and spam, but they are vulnerable to Good Word attack which obfuscates "good words" in spam messages to make it legitimate. This paper attempts for a counterattack strategy to eradicate insertion of good words by proposing architecture of enhanced DKIM (DomainKeys Identified Mail) as a solution. Our experimental result shows that DKIM serves to be the best as it incorporates sender evidence with random values in the E-Mail messages which is critical for the spammers to evade E-Mail filtering process. The misclassification of the spam E-Mail as legitimate E-Mail would reduce the performance of text classifiers. As the number of E-Mail increases, the misclassification percentage decreases by using DKIM.

VOLUNTEER WORK

Snehasandan Boys home
Bangalore, India

- Taught Science and Math subjects to kids age ranging from 10 -18
- Conducted sports to help teach kids importance of physical fitness.
- Conducted classes to help teach kids importance of diet and nutrition.

AMIE,
Baltimore, USA

- Taught high-school kids engineering related subjects.
- Taught kids age ranging from 13 -18
- The clinic was conducted two times a week.

Morgan State Tennis camp
Baltimore, USA

- Taught physically challenged kids' tennis. It was conducted for kids to have fun & be productive.
- Taught kids age ranging from 7 -16
- The clinic was conducted on the weekends during offseason of the men's tennis program.

SKILLS

- *Data Science* – Python, R, SQL, Excel
- *Machine Learning* - Regression, Classification, clustering.
- *Artificial Intelligence* – Reinforcement Learning, NLP, Deep Learning, Neural Networks.
- *Programming* – Python, R, C++, Java, Matlab, Data Structure & Algorithms
- *Web Development* – Django, Python, HTML, JavaScript, CSS,SSL
- *Environment* – GitHub, Command line, Linux (GNU Shell)
- *Product* – Product Development, Product Management, Project Management, Supply Chain and Product Marketing.

PASSION


Tennis


Travel


Multilingual


Fitness


Machine Learning


Artificial Intelligence


Math


Engineering