

Sagar Sathyanarayanan

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EDUCATION

Bachelors of Science

Aug 2013 — May 2017

Morgan State University

- Graduated with Magna Cum Laude.
- 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: AMIE (Advance Minorities Interests in Engineering)
- Submitted projects in subjects varying from Electromagnetics, Semiconductors and Communication.

Masters of Science

Sept 2017 — Mar 2019

University of Oregon

- Studying full product lifecycle – ideation to Go To Market
- Gained knowledge in the creation of footwear, apparel, and equipment through identifying business opportunities, prototyping and presenting to potential investors.
- Gained international perspective through industry visits to ISPO in Germany, and global brands in China and Japan
- Gained experience through internship at a manufacturer in Sri Lanka

QUALIFICATIONS

NanoDegree Certificate - Data Science through Python and SQL - Udacity

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

WORK EXPERIENCE

Columbia Sportswear

Apr 2019 — Jul 2019

Data Analyst - Contract

- 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. Also used
- SQL to get query from the system to better improve the data.

Product development Intern

- The first international intern.
- Used virtual prototyping to reduce the 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 700MN to 1BN by 2020.

JSS Solutions LLC

Mar 2016 — May 2017

Product Manager

- 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

Morgan State University

Aug 2015 — May 2016

Google University team

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

Morgan State University

Aug 2014 — May 2016

Engineering Tutor

- 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.

Bangalore Tennis Academy

Mar 2010 — May 2013

Assistant Head tennis coach

- Manage a group of athletes in order for them to compete in tournaments and other tennis related events.
- Help organize and operate national level tournaments (Under 18, Under 14)

PROJECTS

- **Sentiment Analysis - Published paper - ASEE** <https://peer.asee.org/sentiment-analysis>
- **EEGR 317: Semiconductors - Final Design Project**

A microphone amplifier, also known as microphone preamplifier is an electronic circuit within a microphone, or a separate device/circuit that is connected to a microphone. This device is able to produce a microphone

signal, which can be processed with equipment. Most microphone signals are too weak to be transmitted with adequate 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 is 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 Faraday's 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 user mailboxes 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 -

- Taught Science and Math subjects to kids
- Conducted sports to help teach kids importance of physical fitness

AMIE -

- Taught high-school kids engineering related subjects.
- The clinic was conducted two times a week.

SKILLS & PASSION

- JAVA, Python, SQL, R, Matlab
- Web-Development (CSS, JavaScript, HTML)
- Product development, Product Management

Passion : Engineering, Tennis, Data Science, Programming