

Santhosh Saravanan

Austin, Texas Metropolitan Area



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Summary

Aspiring computer scientist currently working towards a BS in Electrical and Computer Engineering with a focus on Software Design and Data Science

Experience



Undergraduate Research Assistant

The University of Texas at Austin

Jan 2021 - Present (5 months +)

Writing unit tests for Pynets [A Reproducible Workflow for Structural and Functional Connectome Ensemble Learning] related to neural networks



Undergraduate Teaching Assistant

The University of Texas at Austin

Dec 2020 - Present (6 months +)

Teaching Assistant for EE360T [software testing] (Spring 2021)



Research Engineer

Texas Guadaloop

Feb 2020 - Present (1 year 4 months +)



IGVC Software Engineer

The University of Texas at Austin

Oct 2020 - Present (8 months +)



Instructor

Varsity Tutors, a Nerdy Company

Feb 2020 - Sep 2020 (8 months)

Tutored students in ACT Math, SAT Math, mathematics ranging from middle school math all the way to differential equations



WR&D Engineering Intern

Qualcomm

May 2020 - Aug 2020 (4 months)

- Developed an SBA framework as per 3GPP TS 29.500 specs using C/C++, TSN, and Python
- Implemented a Service-Based Interface (SBI) library that employs a REST API using HTTP/2
- Created a mock Unified Data Management (UDM) NF module as per 3GPP TS 29.503
- Cloudified the respective 5GC Core Network Functions using AWS ECR, EC2 and Docker

- Updated an existing Access and Mobility Management Function (AMF) to invoke UDM SBI with the UE Registration procedure
- Saved costs in hardware procurement, addressed OS EOL issues ,and developed a model which disaggregated 5GC components as virtualized network functions



Undergraduate Research Assistant

The University of Texas at Austin

Jun 2019 - Jul 2020 (1 year 2 months)

Topic: Statistical Analysis of Patients with Alzheimer's with response to electrode brain stimulation

- Using Python and Conda to analyze measurements being taken and applying them in social constructs
- Actively contributing to open source software using Github and PsychoPi
- Revising and contributing clean code to undergraduate and graduate researchers in the project
- Learning and using R to generate different statistical plots of patient data



Instructor

Mathnasium - The Math Learning Center

Feb 2019 - Dec 2019 (11 months)

tutored K-8 students in mathematics



Web Development Intern

Deutsch Mit Silke- Learn German

Apr 2018 - Jun 2018 (3 months)

- Created an aesthetically appealing and marketable website to gain more clients using HTML, CSS, and Javascript.
- Displayed accurate market analysis, competition, and other business planning strategies for company



Software Development Intern

ExcelForte Software Pte Ltd

Jun 2017 - Dec 2017 (7 months)

- I was tasked with developing and creating a mobile app with Java and the Android Studio environment, with testing functionality on various Samsung platforms
- Used AWS EC2 to push my mobile app database into the cloud.
- Learned about Firebase authentication for login security and configured sign-up and log-in with Facebook, Google, and Twitter

Education



The University of Texas at Austin

Bachelor's degree, Electrical and Computer Engineering

2018 - 2022

Technical Core: Software Engineering and Design

Secondary Core: Academic Enrichment

Skills

Java • C++ • Python (Programming Language) • Strategy • Computer Science • Social Media • Chemistry • Molecular Biology • Statistics • Volunteering

Honors & Awards



University Honors - The University of Texas at Austin

Feb 2021

Spring 2020 - Spring 2021



National Merit Scholar - Collegeboard

Dec 2016



AP Scholar with Distinction - College Board

Jun 2016



AP Scholar with Honors - College Board

Jun 2016



Completion of Kumon Math Program - Kumon

Jul 2014

This organization lies on strict principles on how math must be studied. Through endless mistakes in complicated math problems and enthusiastic and caring instructors, I have managed to complete the Math program, an achievement held by a small percentage of Kumon students. This program helped give me the confidence to tackle advanced math courses.



Completion of Kumon Reading Program - Kumon

Jul 2014

This program, through its expert instructors and former college professors in reading, helped give me the confidence to analyze hard literary pieces written by the greatest thinkers of the era. The progress to attain perfection and successfully complete this program was slow at first, but got faster after I began to learn from these amazing instructors.



Honorary Distinction - Kumon

Jul 2014

Ranked in top 50 out of 21,345 Kumon Academic Reading and Math Students globally



Most Improved Project Award - CodeDay LA

Feb 2017

CodeDay is a competition in which teams from high school and college teams compete to make the best apps, games, websites etc. within 24 hours. Samurai Shooter is a top-down 2-D game first-player shooter game. Our app (Samurai Shooter) was created using Construct 2 and our graphics were completely made from scratch, mostly with pixel editor and photoshop. It won "Most Improved" due to the quality of graphics and the addition of complex code.