Sidharth Santhi Nivas

Email: ssanthin@buffalo.edu
Mobile : +1-716-289-3433

SUMMARY

Grounded and solution oriented problem solver with Undergraduate degree in Computer Science and Masters in Electrical Engineering. Prior to Masters, worked as software engineer for 3+ years. Proficient in data structures, design and analysis of algorithms,development of highly scalable web applications and digital design.

EDUCATION

- **University at Buffalo** — Buffalo, NY
  Master of Science in Electrical Engineering (Graduating 2022 December); Current GPA - 3.95/4 — *2021- present*
- **Amrita Vishwa Vidyapeetham** — Kerala, India
  Bachelor of Technology in Computer Science; GPA - 7.5/10 — *2013-2017*

TECHNICAL SKILLS

- **Problem Solving**: Data Structures, Algorithms, Computer Networks, Computer Architecture,Digital logic design
- **Languages**: JavaScript, Java, Python, C++, C Programming, Verilog HDL,VHDL
- **Web technologies**: NodeJS, ExpressJS, Spring boot, Hibernate, Angular 2+, Dev-Ops (Docker,Kubernetes, Jenkins)
- **Databases**: MongoDB, SQL Server, MySQL

RELEVANT ACADEMIC/RESEARCH PROJECTS

- **Highly scalable ticket listing E-Commerce application**: Developed a highly scalable micro services based ticket listing e-commerce application(MERN stack) following object oriented design principles.
- **Microprocessor design**: Designed and simulated a 32 bit single cycle processor based on MIPS instruction set architecture using Verilog HDL. Subsequently verified the design using an FPGA board.
- **Machine Learning on Hardware(ongoing)**: Designing a custom chip for autonomous driving that takes lidar sensor data as the input. developed a 2d simulation tool using javascript for training the model. The extracted model attributes(weights and biases) are then used to design the hardware.
- **Aspect Based Sentiment analysis**: Improved the classification accuracy of polarity of sentences using Support Vector Machines (SVM) and Singular Value Decomposition (SVD) algorithms. Published in ICACCI-2017.
- **IOS Fitness App**: Developed a fitness application that extracts real time motion sensor data to calculate the step count, distance walked and the calories burnt with a dashboard that provides statistical fitness data on a weekly basis.

EXPERIENCE

- **University at Buffalo** — Buffalo, USA

  Teaching Assistant — *2022 Fall Semester*
  - Responsible for evaluation of 80+ undergraduate students in VHDL hardware programming lab experiments involving design of complex digital circuits and subsequent grading.

- **Adysas Scientific Software Solutions** — Bangalore, India

  Software Engineer — *2019 - 2021*
  - Involved in multiple phases of software development, including requirement gathering, development, testing and deployment using Agile methodology, TDD (test driven development) and Dev-Ops principles.
  - Developed code generation module to scale up development process and enforce code quality in a lean environment.
  - Implemented various database optimization (non-relational) resulting in 10X speed of query processes.
  - Developed the mission critical ETL module for the application involving strict HIPPA regulations.

- **EY (Ernst & Young)** — Bangalore, India

  Associate Software Engineer — *2017 - 2019*
  - Full stack web developer, involving in the development of various cloud based web applications in the financial regulatory compliance domain using a multitude of technologies.
  - Ownership of several modules and performance tuning of mission critical components involving caching, lazy loading, and database query optimization.
  - Involved in end to end automation(Dockerization, Test Automation and Deployment) of the development cycle using Dev-Ops Principles.