220 Elm St Apt 221
Clemson SC 29631
USA

Sriram Madhivanan

(479) 856-4941
sriram.madhivanan@gmail.com
www.linkedin.com/in/sriram17
https://smadhiv.github.io

Employment

Teaching Assistant — **Clemson University** — **Fall 2015 – Present**

- Course: ECE 2080 Electrical Engineering Lab 1
- Objective is to introduce electrical measurement techniques, theory and experimental verification of theorems and concepts of Electrical Engineering.

Associate Consultant — **Infotrellis Inc.** — **Fall 2012 – Fall 2014**

- Performed end-to-end Extraction Transformation and Load (ETL) tasks from requirement analysis to system study, design, implementation, and documentation.
- Provided a report on search engine optimization possibilities for the company website.
- Created training material for various tools to get new hires on board.

Education

Clemson, SC — **Clemson University** — **Spring 2015 – Present**

- M.S. in Computer Engineering, GPA: 3.67
- Graduate Coursework: Data-Driven 2D Game Development, Advanced Data Structures, Operating Systems, FPGA design and Applications, Artificial Neural Networks, High Performance Computing with GPUs, Embedded Computing, Computer Communications, Network Security, MPI Programming in C.

Chennai, India — **Anna University** — **Fall 2008 – Spring 2012**

- B.E. in Electrical and Electronics Engineering, GPA: 8/10
- Undergraduate Coursework: Digital Signal Processing, Digital Logic Circuits, Data Structures and Algorithm, Numerical Methods.

Technical Experience

Projects

- **Kakuro Solver** (Python). Implemented a solver for the kakuro puzzle in python using object oriented programming.The design lists all possible solutions. Solution is obtained by reducing the possible combinations based on the intersection information.
- **Acceleration of Huffman Coding using MPI and CUDA** (C, MPI, CUDA). Implemented Huffman coding using CUDA and MPI to achieve scalable speedup for compression and decompression in a proprietary file format. Obtained maximum speedup of 13.5 and 15 with MPI and MPI-CUDA implementations respectively.
- **Device Driver** (C). Implemented a device driver for PCI graphics card in Linux 4.3.3 to draw triangles using FIFO as well as DMA facility.
- **Data Driven 2D Game** (C++, SDL1.2). Created a data driven 2D game of fighter genre with option of pvp or pvAI. Code is done on C++ using SDL1.2 library. Singleton, factory, strategy, flyweight and observer patterns were used.
- **Acceleration of Kalman Filtering using OpenCL for FPGAs** (C, OpenCL). Developed a hardware solution to accelerate a 2D Kalman filter using OpenCL. Certain portions were successfully accelerated, but the overall design was slower than the CPU implementation.

Languages and Technologies

- C++, C, Python, CUDA, MPI, JAVA, SQL.
- Eclipse, Visual Studio, Microsoft SQL Server, DB2, Teradata, DataStage, Informatica.