**Gautam Rangarajan**

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**OBJECTIVE**

To obtain a co-op or internship in the discipline of Software Engineering.

**EDUCATION**

**Purdue University**, West Lafayette, IN

Bachelor of Science in **Computer Engineering** ***Expected December 2018***

Pursuing a **Minor in Economics** as well as a **Certificate for Entrepreneurship and Innovation**.

Cumulative GPA: **3.91/4.0**

Academic Achievements: Currently on the **Dean’s List**, with **Semester Honor’s** in all previous semesters

**Technical Skills**: C, MATLAB, Python, C++, Verilog

**Certifications**: Certificate in **Machine Learning** from **Stanford University**

**Relevant Coursework**: Data Structures, Advanced C Programming, ASIC design

**PROJECTS**

**Machine Learning Projects**

* **Image Identification of Simpsons Characters**: Implemented and trained neural network to identify 15 different characters from the popular TV show, Simpsons. Language: Python.
* **Housing Price Predication**: Used gradient descent and linear regression algorithms to predict housing prices in Seattle. Language: MATLAB.
* **Hand-written number Identification**: Implemented and trained neural network to identify hand-written numbers between 0 and 9. Language: MATLAB.

**Transistor Packer**

* Developed a binary tree based algorithm to optimize the area occupied by a given set of transistors on a circuit board.
* Language: C

**Route Planner**

* Implemented a program to find the shortest path that passes through all user inputted locations.
* Locations were accepted in the form of integer coordinates on the XY plane.
* Language: C

**Image Decryption and Edge Detection ASIC**

* Was a part of the 4-member team that designed the Image Decryption and Edge Detection ASIC using **VERILOG**.
* The intended use for this ASIC is to serve as a means to simplify, secure and accelerate **fingerprint matching**.
* Used RC4 decryption and Sobel Edge Detection Algorithms to implement the ASIC.
* On completion, the ASIC simulation performed the given task **40 times faster** **than our python implementation**.

**INTERNSHIP EXPERIENCE**

**Hardware Engineering Intern at General Electric – Appliances *August 2016 – December 2016***

Performed the role of a hardware intern at GE appliances (Louisville, Kentucky). Was a part of the 8-member **Range Electronics Team** that designed the 2017 Gas and Induction Range Model’s electronic systems.

* Made **design changes to reduce power consumption** in knob boards
* Implemented a standby mode that puts the board in a low power mode while not in use.
* Reduced power consumption by almost **90%**.
* **Diagnosing and Troubleshooting board malfunctions**
* Used computer simulation tools like **LTSPICE**, along with physical measurement tools to diagnose board malfunctions. Made alterations where required.
* **Design and Production of Prototype Boards** – Involved both schematic and layout design using **Cadence Design Systems**.

**Junior HR / Recruiting Coordinator at Infomatics Inc (an Inc-500/5000 company)** ***June 2015-August 2015***

An IT consulting and Staff Augmentation Company, headquartered in Michigan, with operations in the US, India and the Middle East.

* Assisted senior IT Recruiters with drafting emails addressed to candidates, writing and proofreading job descriptions etc.
* Liaised with potential candidates for scheduling interviews.
* Created management reports in excel to track daily performance of recruiters and to maintain interview schedules.