

# VAIBHAV YENAMANDRA

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## EDUCATION

### Master of Science, Computer Science

University of Florida (CGPA: 3.47/4)

*Coursework: Programming Languages, Algorithm Analysis, Advanced Data Structures, Machine Learning, Data Mining*

Aug 2016 – Dec 2017 (Est.)

Gainesville, FL, USA

### Bachelor of Engineering, Electrical and Electronics Engineering

Birla Institute of Technology and Science - Pilani (CGPA: 6.68/10)

*Coursework: Analog and Digital VLSI Design, Microelectronic Circuits, Communication Systems*

Aug 2010 – May 2014

Pilani, India

## TECHNICAL SKILLS

### Programming Languages

Python, C++, Java, Ruby, Elixir

### Software & Tools

MPI, CMake, CUDA, OpenCV, Linux, L<sup>A</sup>T<sub>E</sub>X

### Web Technologies

Ruby on Rails, Sinatra

## WORK EXPERIENCE

### Consultant, Business Analyst

*Capgemini India Pvt. Ltd.*

Jun 2014 – Jul 2016

Mumbai, India

- Liaisoned between business, development, and QA stakeholders to ensure service level agreements were met
- Acted as primary point of contact for a part of the project's software stack
- Automated 6 of 8 offshore reports leading to total time savings upwards of 3 hours daily

## PROJECTS

### Summer Research - Automatic Terrain Identification

*Big Data, Parallel Processing, CUDA, MPI*

May 2017 – Sep 2017

- Responsible for GPU accelerating boundary detection code using CUDA
- Achieved speedup of almost 200 by reducing run time from 65 min to 20 sec
- Optimized I/O, inter process communication to scale the existing framework from the initial  $1000 \times 1000$  pixel to  $100,000 \times 100,000$  pixel satellite imagery

### Distributed Cryptocurrency Miner

*Distributed Systems, Elixir, Erlang*

Sep 2017 – Present

- Implemented a distributed cryptocurrency miner in Elixir that used an actor model of concurrency to distribute work among networked workers
- Utilized 88-95% of available CPU cores to sustain 65k green threads evaluating 1.8 million hashes per second on a mid-range laptop.

### Rubygem – PCG Random

*C, Ruby, Random Number Generation*

Sep 2017 – Present

- Published a Ruby C extension providing the PCG family of random number generators
- The C extension outperforms in speed, Ruby2.1's Random class for generating Big-Integers, otherwise matching it

### Statistics Library

*Statistics, Random Number Generation, C, Ruby*

Jun 2016 – Present

- Published a Ruby library implementing statistical primitives for the Ruby language, providing functions not currently available in the language

## EXTRACURRICULAR

Project Leader, Course Planner, UF Open Source Club

Maintainer, *distribution* repository, *SciRuby* project

Feb 2017 – May 2017

May 2016 – Present