

# VAIBHAV YENAMANDRA

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## EDUCATION

**Master of Science, Computer Science** **Aug 2016 – Dec 2017 (Est.)**  
University of Florida (CGPA: 3.47/4) Gainesville, FL, USA  
*Coursework: Programming Languages, Algorithm Analysis, Data Structures, Machine Learning, Data Mining*

**Bachelor of Engineering, Electrical and Electronics Engineering** **Aug 2010 – May 2014**  
Birla Institute of Technology and Science - Pilani (CGPA: 6.68/10) Pilani, India  
*Coursework: Analog and Digital VLSI Design, Microelectronic Circuits, Communication Systems*

## TECHNICAL SKILLS

<b>Programming Languages</b>	Python, C++, Java, Ruby, Elixir
<b>Software &amp; Tools</b>	MPI, CMake, CUDA, OpenCV, Linux, L <sup>A</sup> T <sub>E</sub> X
<b>Web Technologies</b>	Ruby on Rails, Sinatra

## WORK EXPERIENCE

**Consultant, Business Analyst** **Jun 2014 – Jul 2016**  
*Capgemini India Pvt. Ltd.* 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** **May 2017 – Sep 2017**  
*Big Data, Parallel Processing, CUDA, MPI*

- Responsible for GPU accelerating boundary detection code using CUDA
- Achieved speedup of almost 200 by reducing run 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** **Sep 2017 – Present**  
*Distributed Systems, Elixir, Erlang*

- 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** **Sep 2017 – Present**  
*C, Ruby, Random Number Generation*

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

**Statistics Library** **Jun 2016 – Present**  
*Statistics, Random Number Generation, C, Ruby*

- 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** **Feb 2017 – May 2017**  
**Maintainer, *distribution* repository, *SciRuby* project** **May 2016 – Present**