

# Rahul Garg

Santa Clara, CA  
☎ (510) 833-4258  
✉ rg@vihu.dev  
📁 github.com/vihu

---

## Education

- 2012-08-01 | **Master of Science in Information Technology**, *Rensselaer Polytechnic Institute*, GPA: 3.9, *Troy, NY*.  
2013-12-01  
2007-05-01 | **Bachelor of Technology in Electronics and Communication Engineering**,  
2011-06-01 *Indian Institute of Technology (ISM)*, GPA: 7.14, *Dhanbad, India*.

---

## Experience

- 2017-12-12 – **Software Engineer**, *Helium Inc.*, San Francisco, CA.  
Present
  - Implemented a novel and publicly traded Blockchain written in Erlang
  - Co-authored HoneybadgerBFT consensus protocol
  - Co-authored Distributed Key Generation for the Internet
  - Solving complex mathematical problems related to probability, cryptography and distributed systems
- 2016-10-24 – **Senior Software Engineer**, *Nimble Storage - Hewlett Packard Enterprise*, San Jose, CA.  
2017-12-06
  - Owner of Test Execution framework written entirely in Elixir with full OTP behavior
  - Wrote tool service monitor, mimics Apple System Status service with real time updates. Elixir/React
- 2016-07-01 – **Software Engineer III**, *Cisco Systems Inc.*, San Jose, CA.  
2016-10-24
  - Automation Lead for Cisco Unified Computing System Virtual Interface Card team
  - Mentored junior engineers
- 2014-02-03 – **Software Engineer II**, *Cisco Systems Inc.*, San Jose, CA.  
2016-07-01
  - Automated SMB traffic generator for Windows platform for Cisco VIC adapter performance testing
  - Developed easy to use Python APIs for Cisco VIC adapters multiple platform testing
  - Wrote numerous standalone scripts using Powershell for automated testing of Blade/Rack server adapters for Windows platform
  - Planned and executed test plans for feature releases for Cisco's Unified Computing System with focus on Virtual Interface Cards
- 2013-05-01 – **Software Engineering Intern**, *Cisco Systems Inc.*, San Jose, CA.  
2013-08-01
  - Scripted for SCVMM Hyper-V VM-FEX architecture
  - Understood Hyper-V, Cisco UCS and virtualization stack

---

## Skills

Languages Erlang, Rust, Elixir, Python  
Web Phoenix, Flask

Infrastructure Ansible, Heroku, AWS

Databases Postgres

Virtualization Docker, Hypervisor

---

## Projects

**kdtree**, *erlang*.

Simple kdtree written in Erlang  
<https://hex.pm/packages/kdtree>

**vincenty**, *erlang*.

Erlang library to calculate distance between 2 points with Vincenty's formulae  
<https://hex.pm/packages/vincenty>

**erlang-oc**, *erlang*, *rust*.

Online-code rateless erasure codes  
<https://github.com/vihu/erlang-oc>

**erlang-fountain**, *erlang*, *rust*.

Fountain code rateless erasure codes  
<https://github.com/vihu/erlang-fountain>

**erl-blake3**, *erlang*, *rust*.

BLAKE-3 bindings  
<https://github.com/vihu/erl-blake3>

**erldpc**, *erlang*, *rust*.

LDPC bindings  
<https://github.com/helium/erldpc>

**erlang-hbbft**, *erlang*.

Honeybadger BFT consensus algorithm  
<https://github.com/helium/erlang-hbbft>

**erlang-dkg**, *erlang*.

Distributed Key Generation algorithm  
<https://github.com/helium/erlang-dkg>

**gogo**, *rust*.

Terminal bookmark manager  
<https://crates.io/crates/gogo>

**erlang\_tc**, *erlang*, *rust*.

Erlang bindings for threshold cryptography over BLS12-381 keys  
[https://hex.pm/packages/erlang\\_tc](https://hex.pm/packages/erlang_tc)