

Rahul Garg

Santa Clara, CA
✉ 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