

Rahul Garg

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Education

Rensselaer Polytechnic Institute

MASTER OF SCIENCE IN INFORMATION TECHNOLOGY

GPA: 3.9

Troy, NY

2012-08-01 – 2013-12-01

Indian Institute of Technology (ISM)

BACHELOR OF TECHNOLOGY IN ELECTRONICS AND COMMUNICATION ENGINEERING

GPA: 7.14

Dhanbad, India

2007-05-01 – 2011-06-01

Experience

Nova Labs Inc.

SOFTWARE ENGINEER

- Migrating Helium Blockchain ecosystem to Rust Oracles
- Maintaining Helium Blockchain Network
- Working with the Solana ecosystem

Remote

2022-04-01 – Present

Helium Inc.

SOFTWARE ENGINEER

- One of the founding developers of Helium Blockchain Network
- Co-authored HoneybadgerBFT consensus protocol
- Co-authored Distributed Key Generation for the Internet
- Co-implemented novel Proof of Coverage mechanism for reward incentive for Helium miners
- Solved complex mathematical problems related to probability, cryptography and distributed systems

San Francisco, CA

2017-12-12 – 2022-04-01

Nimble Storage - Hewlett Packard Enterprise

SENIOR SOFTWARE ENGINEER

- 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 in Elixir
- Migrated legacy Perl automation code to new Python bindings

San Jose, CA

2016-10-24 – 2017-12-06

Cisco Systems Inc.

SOFTWARE ENGINEER III

- Automation Lead for Cisco Unified Computing System Virtual Interface Card team
- Wrote Python based test framework to interact with Cisco Network Interface cards
- Mentored junior engineers

San Jose, CA

2016-07-01 – 2016-10-24

Cisco Systems Inc.

SOFTWARE ENGINEER II

- 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

San Jose, CA

2014-02-03 – 2016-07-01

Cisco Systems Inc.

SOFTWARE ENGINEERING INTERN

- Scripted for SCVMM Hyper-V VM-FEX architecture
- Understood Hyper-V, Cisco UCS and virtualization stack

San Jose, CA

2013-05-01 – 2013-08-01

Skills

Languages: Erlang, Rust, Elixir, Python

Web: Phoenix, Flask

Infrastructure: Ansible, Heroku, AWS

Databases: Postgres

Virtualization: Docker, Hypervisor

Projects

gogo

TERMINAL BOOKMARK MANAGER

rust

crates.io/crates/gogo

erlang-hbbft

HONEYBADGER BFT CONSENSUS ALGORITHM

erlang

github.com/helium/erlang-hbbft

erlang-dkg

DISTRIBUTED KEY GENERATION ALGORITHM

erlang

github.com/helium/erlang-dkg

blockchain-core

HELIUM CORE BLOCKCHAIN LIBRARY

erlang

github.com/helium/blockchain-core

miner

HELIUM MINER

erlang

github.com/helium/miner

kdtree

SIMPLE KDTREE WRITTEN IN ERLANG

erlang

hex.pm/packages/kdtree

vincenty

ERLANG LIBRARY TO CALCULATE DISTANCE BETWEEN 2 POINTS WITH VINCENTY'S FORMULAE

erlang

hex.pm/packages/vincenty

erlang-oc

ONLINE-CODE RATELESS ERASURE CODES

erlang, rust

github.com/vihu/erlang-oc

erlang-fountain

FOUNTAIN CODE RATELESS ERASURE CODES

erlang, rust

github.com/vihu/erlang-fountain

erldpc

LDPC BINDINGS

erlang, rust

github.com/helium/erldpc

erlang-tc

ERLANG BINDINGS FOR THRESHOLD CRYPTOGRAPHY OVER BLS12-381 KEYS

erlang, rust

hex.pm/packages/erlang_tc

erlang-skiplist

ERLANG BINDINGS TO RUST SKIPLIST DATA STRUCTURE

erlang, rust

hex.pm/packages/erlang_skiplist

erl-blake3

ERLANG BINDINGS TO RUST BLAKE3 CRYPTOGRAPHIC HASH FUNCTION

erlang, rust

github.com/vihu/erl-blake3