

# Rohit Varkey Thankachan

rohitvarkey@gatech.edu | 404.579.3137  
<https://rohitvarkey.github.io> | [github.com/rohitvarkey](https://github.com/rohitvarkey)  
<https://linkedin.com/in/rohitvarkey>

## EDUCATION

**Georgia Institute of Technology**  
MASTERS IN COMPUTER SCIENCE  
Expected May 2018 | Atlanta, GA

**National Institute of Technology Karnataka**  
BACHELORS IN COMPUTER ENGINEERING  
May 2016 | GPA: 8.4/10.0 | Surathkal, India

## EXPERIENCE

**Julia Summer of Code | OPEN SOURCE CONTRIBUTOR**

June 2015 – Aug 2015 | Remote, Kochi, India

- One of 9 students chosen worldwide as part of the JSoc program, sponsored by the Moore Foundation and MIT.
- Created a Julia package, `Compose3D.jl` for 3D declarative graphics.
- Implemented custom web components for `three.js` using Google's Polymer library.
- Using the `three.js` custom web components, created `ThreeJS.jl` to create 3D graphics for the web directly from Julia.
- Developed applications to render surf and mesh plots interactively based on `ThreeJS.jl`.
- <https://github.com/rohitvarkey/ThreeJS.jl>
- <https://github.com/rohitvarkey/Compose3D.jl>

**RapidValue Solutions | SOFTWARE INTERN**  
May 2014 – June 2014 | Kochi, India

- Worked on iBeacon technology.
- Created a Proof Of Concept application to demonstrate applications of iBeacon Technology in retail.
- The PoC was further developed into a full fledged product.

## SKILLS

**Programming:** Python • C • UNIX shell • C++ • JavaScript • Julia •  $\LaTeX$

**Web Development:** Django • REST APIs • Nginx • PostgreSQL • HTML • CSS • Polymer • Meteor • Node.js • Bower • Bootstrap3

## PRESENTATIONS

**JuliaCon 2016 | MIT, CAMBRIDGE, MA**  
`ThreeJS.jl`: Interactive 3D Graphics in the Browser using Julia

**JuliaCon India 2015 | BANGALORE, INDIA**  
Interactive 3D Visualizations in Julia

**JuliaCon 2015 | MIT, CAMBRIDGE, MA (OVER VIDEO)**  
`Compose3D.jl`

## PROJECTS

**Smriti | A PORTAL FOR COLLEGE MEMORIES**

- Wrote scripts to parse Google form data, create users with random passwords and send out emails to 900 students.
- Developed a web portal for testimonials to be shared using Django.
- Generated PDFs of profiles of each student to provide personalized hard copies for every student.

**Healthizen | SYNERGY FOR A PRISTINE BENGALURU**

- Developed a web application to crowdsource health and sanitary issue reports in Bangalore in association with the Karnataka State Government.
- Implemented the backend in Django with a REST API.
- Ran database migrations on the production server successfully.
- <http://healthizen.org/>

**Phosphene | A PYTHON MUSIC PROCESSING LIBRARY FOR HAND MADE DEVICES**

- Added support for realtime music processing.
- Implemented the reactive paradigm, providing users with a natural way to work with music signals.
- Interfaced with several electronic devices to manipulate them according to the music using serial communication.
- <https://github.com/rohitvarkey/phosphene>

**TJNite | COLORS ON PHONES WITH THE BEAT**

- Developed an application to sync colors on the crowd phones in tune with the beat of the music being played.
- Maintained websockets connections to push updates to mobile browsers.
- <https://github.com/rohitvarkey/TJNite>

## PUBLICATIONS

[1] Pranav Thulasiram Bhat, Rohit Varkey Thankachan, and K. Chandrasekaran. "Sharding distributed social databases using social network analysis." *Social Network Analysis and Mining* 5.1 (2015): 1-11.

## LEADERSHIP

- **President** and **Code Special Interest Group Head** | Institution of Engineers NITK Chapter, 2015-2016
- **Joint Convenor** | Technites, Engineer NITK 2015