

# Vishak Visvanathan

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[portfolio](#)



[github](#)



[linkedin](#)

## PROJECTS

**Sitbit Dashboard** (*Rails, Backbone.js, Vega.js*) | [live](#) | [github](#)

*Health tracking & data visualization app inspired by Fitbit Dashboard.*

- Utilizes modified Backbone composite view pattern to chart health data in a responsive single-page app.
- Pioneered integration of Backbone view patterns with Vega.js graphing library.
- Maximized chart render speed through reconciliation of server-side and client-side data handling.

**Rails Lite + ActiveRecord Lite** (*Ruby*) | [github](#)

*Lightweight version of Ruby-on-Rails with custom ActiveRecord ORM implementation.*

- Replicates Rails controller and router object classes, including controller methods.
- Stores and persists serialized session data in WEBrick cookie.
- Fully featured ORM associations and table modification methods.

**TRON** (*Javascript, HTML5, CSS3*) | [live](#) | [github](#)

*Javascript game based on the 1980's cult classic TRON.*

- Features modern, themed user interface; single-player and multiplayer modes.
- AI calculates optimal re-route upon collision through 'sweep area' method.

## SKILLS

**Ruby**  
**Rails**

**Javascript**  
**jQuery**

**Backbone**  
**SQL**

**HTML**  
**CSS**

**TDD**  
**git**

## EXPERIENCE

**Jr. Mechanical Engineer** (2013 - 2014)

*Science Applications International Corporation (SAIC)*

- Standardized protocol for assembly tracking to increase design team productivity.
- Initiated and executed comprehensive mechanical analysis and documentation of mission-critical network racks (Space and Naval Warfare Systems).

**Assistant Scientist** (2013 - 2014)

*Enviroapplications*

- Supported engineering operations with regulatory research, drafting, and emissions analysis.
- Designed 50+ solar PV systems for commercial and residential installations.

## EDUCATION

**App Academy** (2015)

*Immersive software and web development course • acceptance rate < 3%*

**University of California, San Diego** (2013)

*BS Environmental Engineering*

**Relevant Coursework:** Engineering Statistics, Differential Equations, Numerical Analysis