# MichaelGutensohn


## contact

Los Angeles, CA

(407) 361-2887

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## programming

JavaScript, C/C++, C#, Python, SQL, Ruby, Java, SVG, OpenCV, Unity, D3.js, Node.js, Electron, Express, Ruby on Rails, Linux, Git, Agile, LaTeX

## skills

Software Design & Development, Computer Vision, Data Visualization.

## experience

6/18–Now **NASA Jet Propulsion Lab** Pasadena, CA
*Data Visualization Intern*
**Mentor:** Basak Alper Ramaswamy
**Projects:** ODVis
**Description:** Prototyped data visualization tools for Mission Design and Navigation

1/18–5/18 **NASA Kennedy Space Center** Kennedy Space Center, FL
*Augmented & Virtual Reality Intern*
**Mentor:** William Little
**Projects:** AVR Gateway, AVR Vision
**Description:** Worked with OpenCV and depth sensing cameras to develop and implement a user authentication system.

9/17–12/17 **NASA Kennedy Space Center** Kennedy Space Center, FL
*Software Development Intern*
**Mentor:** Andrew Davis
**Projects:** SpaceDex
**Description:** Developed web based project management tools for Kennedy Space Center's Ground Systems Development and Operations Division

6/17–9/17 **NASA Jet Propulsion Lab** Pasadena, CA
*Web Development Intern*
**Mentor:** Alexandra Holloway
**Projects:** Deep Space Network Track Simulator
**Description:** Developed user research tools for the Deep Space Network design team.

## education

Accepted **M.A.** in Information Management and Systems UC Berkeley

2018 **B.A.** in Computer Science [GPA: 3.59] Rollins College

## other qualifications

2016–2018 **Student Chapter Vice President** Rollins ACM

## awards

2018 **Outstanding In Major** Rollins College
Awarded for actively working to improve the Rollins Computer Science Community and assisting other students in furthering their education & careers.

## interests

**professional:** Space Exploration, Data Visualization, Virtual & Augmented Reality, Web Development, Natural User Interface Research.
**personal:** Astrophotography, Interior Design, Travel.

# projects

Current **ODVis** NASA Jet Propulsion Lab
Prototyped an interactive web application for Mission Design and Navigation group, specifically for the process of Orbit Determination. The application consists of a set of interactive visualizations, juxtaposing input models and parameters chosen versus resulting error in data fitting.
**Utilizes:** D3.js, Node.js, SVG

Spring '18 **AVR Gateway** NASA Kennedy Space Center – AVR Lab
A Natural User Interface that uses facial recognition via the AVRVision Framework and Microsoft Kinect to authenticate users, and then voice recognition to launch Virtual Reality apps. The purpose of this project was to demo the functionality of the AVRVision Framework when used with the Microsoft Kinect .
**Utilizes:** C#, Microsoft Kinect 2.0, .NET

Spring '18 **AVR Vision** NASA Kennedy Space Center – AVR Lab
An optimized OpenCV C# wrapper framework specifically for conducting the high level tasks of facial recognition: checking a face, returning the name associated with the face if recognized, indicate when a face is unrecognized, and adding new faces to it's model. The framework is written to be compatible with both Unity and Windows Presentation Foundation.
**Utilizes:** C++, C#, OpenCV

Fall '17 **SpaceDex** NASA Kennedy Space Center – GSDO
SpaceDex was developed for the branch chiefs and administrators at Kennedy Space Center to assist in tracking personnel, their time charge distribution, and what projects they are currently assigned to, as well as the leads and backups for each project.
**Utilizes:** Ruby on Rails, PostgreSQL, CoffeeScript, HTML/CSS, Bootstrap, SASS, AJAX

Summer '17 **Deep Space Network Track Simulator** NASA Jet Propulsion Lab
The DSN Track Simulator is used to simulate the DSN operations software and how it might behave during any given track, the connection between a ground antenna and spacecraft. It was initially developed for user testing for conceptual software tools, but could be used for operator training in the future.
**Utilizes:** Node.js, Electron, EJS, HTML/CSS, Oracle, SQLite, Agile

Spring '17 **"The Parking Problem" a Parking Optimization System** Rollins College
Developed as a senior capstone project, The Parking Problem was a parking optimization system that utilized a network of camera equipped Raspberry Pis and OpenCV to monitor parking availability across campus.
**Utilizes:** Python, openCV, Node.js, and Express.js