

# Mauricio Gomez Aguinaga

## Software Engineer

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### Experience

- Chan Zuckerberg Initiative – Software Engineer** 2017 - Today  
Automate our infrastructure maintenance, monitoring, creation and on demand scaling on AWS and Heroku. I have also driven tons on enhancements to facilitate data transmission and performance across different apps.
- GoDaddy – Full Stack Web Developer** 2016 – 2017  
I was part of the [Online Store](#) team. Completely refactor the backend using Ruby on Rails, contributed on the integration with foreign processors, shipping services and internationalization.
- Groupon – Full Stack Web Developer** 2013 – 2016  
Worked on the Point of Sale for the iPad for Groupon Merchants: [Breadcrumb](#). I implemented the enterprise level reporting, migrated our administration portal into a single page app and implemented a native [iPhone App](#) for real time reporting.
- Walt Disney Animation Studios - Assistant Technical Director** 2012 – 2013  
Develop, maintain and improve different parts of our pipeline and create tools to assist the studio in content Creation for feature films like [Frozen](#), [Wreck it Ralph](#) and the [Mickey Short](#). My main projects were a web based system to analyze and compare render farm utilization, a modal user interface for publishing assets across departments, a UI analytics tool and a particle based Snow Painting Tool.
- POSLavu - Software Engineer** Summer 2012  
Lead the team that re-implemented the front end for the web administration portal for our Point of Sale. I was also in charge of the Table Layout Setup module, the Printer Discovery algorithm to find and setup printers in a local network and led the implementation for our first Quality Assurance Plan.
- Aspen Avionics - Software Engineer Intern** Summer 2011  
Implement new features and functionality for the Synthetic Vision module for the EFD 1000 Glass Cockpit. Including 3D terrain rendering, obstacles, traffic, obstacles, airport and runways display, altitude guidance and many aspects of the main user interface.
- Advanced Graphics Labs, University of New Mexico - Research Assistant** 2009 – 2011  
Research and development of high-end Computer Graphics algorithms and applications. Including Interactive Rendering in a Dome, Route Maps Visualization using the Moiré Effect, Interactive Projective Texture Mapping combining Motion Capture to provide new textures to user bodies, Binocular Stereo Reconstruction and Haptic Rendering.

### Personal Projects

- OBD Python**  
An open source, transactional, object oriented python wrapper on top of serial communications over the OBD II port that allow you full access to all of your car computers (ECU).
- Touch Shaders**  
Geometry reconstruction using the horizontal disparity map from a binocular image. The scene then is rendered in a 3D screen and was able to be touched by a haptic device. My system includes shading framework that allows to paint touch textures on top of geometry so the haptic device reacts differently when it is in contact with different parts of the virtual objects.

### Education

- University of New Mexico** 2009 – 2011  
Masters in Computer Engineering with emphasis in Computer Graphics  
Adviser: Pradeep Sen
- Monterrey Institute of Technology** 2004 – 2008  
Bachelor in Computer Science

### Skills

- Programming Languages:** Ruby, Python, *JavaScript, Swift, Objective-C, C/C++, Java.*
- Libraries, APIs & Languages:** Rails, React, AWS, *Django, QT, OpenGL, iPhone SDK, SQL.*
- Software:** Xcode, Eclipse, Git, *Adobe Creative Suite, Terraform, Ansible, Maya.*
- Languages:** *English, Spanish and Mandarin.*

### Certifications

- Object Oriented Modeling on Rational – RT011.
- Sun Certified Java Programmer for Java (SCJP).
- IBM Certified Database Associate – DB2 (000-730).
- Cisco Certified Network Associate.
- Maya Dynamics and Simulation.