

Mauricio Gomez Aguinaga

Software Engineer

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Experience

- Netflix – Senior Software Engineer** 2021 - Present
Working on multiple tools that will provide an uniform experience accessing the assets creation pipeline for artist around the world.
- Uber – Lead Software Engineer** 2018 - 2021
Led the 3D visualization suite for Robot Studio for our self-driving cars. Most of my work includes robotics visualizations using Deck.gl, React, Xviz, protobuf and gRPC. From time to time, I also jumped into the backend to address data serialization and transport performance issues. I also led the front end for Ad Tech Team, where I grew the team from 1 to 7 full-time employees and up to 10 contractors across 4 different geographies. We worked on projects like: [City Guides](#), Machine Learning Marketing Budget Allocation and Uber Marketing Services (UberEats Ads, Car Top Ads, etc).
- Chan Zuckerberg Initiative – Senior Software Engineer** 2017 - 2018
Automated the infrastructure maintenance, monitoring, creation and on demand scaling on AWS and Heroku. I also drove tons of enhancements to facilitate data transmission and performance across different apps.
- GoDaddy – Senior Software Engineer** 2016 - 2017
I was part of the [Online Store](#) team. Completely refactored the backend using Ruby on Rails, contributed on the integration with foreign payment processors, shipping services and internationalization.
- Groupon – Senior Software Engineer** 2013 - 2016
Worked on the Point of Sale for the iPad for Groupon Merchants: [Breadcrumb](#). I implemented the enterprise level reporting suite, migrated our administration portal into a reactive JavaScript app and implemented a native [iPhone App](#) for real time reporting.
- Walt Disney Animation Studios - Technical Director** 2012 - 2013
Developed and improved the assets pipeline and created tools to assist the studio in content creation for feature films like [Frozen](#), [Wreck it Ralph](#), among others. My main projects involved creating a system to monitor render farm utilization, a user interface for publishing assets and a particle based Snow Painting Tool.
- POSLavu - Software Engineer** Summer 2012
Re-wrote the front end for the web administration portal, implemented the Table Layout Setup module, the Printer Discovery algorithm and led the implementation for our first Quality Assurance Plan.
- Aspen Avionics - Software Engineer Intern** Summer 2011
Implemented 3D terrain, obstacles, traffic, obstacles, airport and runways rendering, altitude guidance and many aspects of the main user interface for the Synthetic Vision module for the EFD 1000 Glass Cockpit.
- Advanced Graphics Labs, University of New Mexico - Research Assistant** 2009 - 2011
Research and development of high-end Computer Graphics algorithms and applications. Including Interactive techniques for Rendering in a Dome, Route Maps Visualization using the Moiré Effect, Interactive Projective Texture Mapping 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
Master's in Computer Engineering with emphasis in Computer Graphics
Advisor: Pradeep Sen
- Tecnológico de Monterrey (Monterrey Institute of Technology)** 2004 - 2008
Bachelor's in Computer Science

Skills

- Programming Languages:** *JavaScript, TypeScript, Ruby and Python. Previous experience with C/C++ and Java.*
- Libraries, APIs & Languages:** *React, Apollo, GraphQL, Rails, Django, QT, iPhone SDK, SQL.*
- Software:** *Visual Studio Code, Maya, Git, Xcode, Adobe Creative Suite, Terraform, Ansible.*
- Languages:** *English and Spanish.*

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.