

# Miguel Garcia

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## EXPERIENCE

### NGOGGLE DIAGNOSTICS | DATA SCIENTIST | CONSULTANT

Nov 2019 – Present | San Diego, CA

- Working on a research project that involves developing effective neurofeedback systems that can help classify sleep stages using low-cost and non-invasive EEG electrodes.
- Identified key performance indicators that are important towards improving sleep quality and for calculating the sleep onset of patients by doing exploratory analysis of the collected/available data.
- Improved data accuracy, viability and value by collecting, cleansing, organizing, and providing useful modeling and thorough analyses.

### UCSD COGNITIVE SCIENCE DEPARTMENT | DATA SCIENCE INSTRUCTIONAL APPRENTICE

Sep 2019 – Dec 2019 | La Jolla, CA | COGS 108

- Assisted with the teaching of an upper division course in Data Science
- Organized weekly discussion and office hour sections where students ask any data science related questions and get help on their projects.
- Attended weekly meetings with all the staff to come up with more resources for the class.

### SWARTZ CENTER FOR COMPUTATIONAL NEUROSCIENCE RESEARCH ASSISTANT

Jul 2019 – Nov-2019 | San Diego, CA

- Assisted in scientific research on REM behavior disorder.
- Implemented machine learning models to assist with the detection of sleep stages on subjects diagnosed with RBD.
- Some of the projects involved processing data that got collected from patients that had different sleep disorders to provide analytics and visualizations on how the brain signals behave under these conditions.

## PROJECTS

### GENERATIVE MODELS FOR IMAGE REPRODUCTION

PYTHON | TENSORFLOW | MACHINE LEARNING | DATA SCIENCE

- Analyzed the performance of different autoencoders and adversarial neural networks when it comes to reproducing image input using the CelebA dataset.
- Built the architecture for the neural networks and the autoencoders using PyTorch and wrote multiple pipelines to pre-process the data.

### MEET TO DINE - SPONSOR WINNING PROJECT

HTML | CSS | NODE.JS | ALGORITHMS

- Sponsor winning project where we designed a mobile app at Cal Hacks 4.0 that facilitates groups of people agreeing upon eating at the best location possible.
- Integrated a database, developed a location tracking functionality, and implemented backend infrastructure by developing a restaurant selection algorithm. Created application in react native using expo.io.

## EDUCATION

### JOHNS HOPKINS UNIVERSITY

M.S. IN DATA SCIENCE | PART-TIME, ONLINE

Expected Dec 2021 | Baltimore, MD

### UNIVERSITY OF CALIFORNIA, SAN DIEGO

B.S. IN COGNITIVE SCIENCE WITH A SPECIALIZATION IN MACHINE LEARNING AND NEURAL COMPUTATION

March 2020 | San Diego, CA

## SKILLS

### PROGRAMMING

- Python • Java • C/C++
- HTML • CSS • JavaScript
- Node.js • SQL • R

### TECHNOLOGY

- MongoDB • MySQL
- Git/Github • Linux
- UNIX • Bash

## STUDIES

### GRADUATE

Adv. Machine Learning Methods  
Discrete Mathematics  
Data Structures

### UNDERGRADUATE

Machine Learning I and II  
Brain Computer Interfaces  
Data Science in Practice  
Programming in Java I and II  
Programming in C  
Software Tools and Techniques  
Systems Programming  
Algorithms  
Data Structures  
Discrete Mathematics  
Probability Theory  
Graph Theory  
Linear Algebra  
Vector Calculus

## LINKS

LinkedIn: [miguelgd54](#)  
Github: [miguelgd54](#)  
Personal Website