

RAPHAELLE MARCIAL

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EDUCATION	Rutgers University, New Brunswick, New Jersey	May 2018
	B.S. in Computer Engineering	

RELEVANT COURSES

- Digital Logic Design - 14:332:231 Fall 2015
 - Introduced to the basic tools for design with combinational and sequential digital logic and state machines. Course included binary arithmetic, Boolean algebra, K-maps, combinational circuit synthesis, sequential logic, and synchronous state machine design.
- Computer Architecture & Assembly Language - 14:332:331 Spring 2016
 - Covered the history and principles of computer architecture. Course included computer organization, assembly language and machine code, computer arithmetic, ALU design, computer performance, datapath and control, pipelining, memory hierarchy, I/O devices, multi-processor and distributed architectures.
- Digital Electronics - 14:332:366 Spring 2017
 - Principles of digital electronics, implementation of logic gates with MOSFETs and BJTs. Analyzed different logic families including NMOS, CMOS, TTL, and ECL. Explored fundamentals of digital memory circuits.

TECHNICAL SKILLS

- Languages: C++, Assembly, MATLAB, HTML, CSS, PHP, MySQL
- Tools: PSPICE
- Equipment: Raspberry Pi, Oscilloscope, Signal/RF Generators, Multimeter
- Operating Systems: Windows, Linux, macOS

RELATED PROJECT	Restaurant Automation for Software Engineering - 14:332:452	Spring 2017 - Present
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- A 7-member project that involves developing a demonstrable web application to produce more efficient operations in medium-sized restaurants.
 - Utilizing traditional and web programming languages such as Java, SQL, and PHP
 - Learning modular design of software and documenting the design using symbolic representations via UML
 - Designing and implementing various tests such as unit tests, integration, and system and acceptance tests

RESEARCH	Rutgers Solar-to-Vehicle (S2V) Project	May 2016 - Present
	<i>Aresty Research Assistant</i>	

- Implemented electric vehicle surveillance system using Python scripts in Raspberry Pis connected to solar modules, solar panel charge controllers, and rechargeable batteries
- Analyzing eGauge data and video feed to identify when cars are full, when non-electric vehicles are parked at a charging station, and how much power was consumed by each vehicle
- Creating business model for Rutgers University - New Brunswick in order to provide additional charging stations for a campus with more than 50% of the population being commuters

LEADERSHIP	Engineers Without Borders – Guatemala	January 2015 - Present
	<i>Monitoring Lead</i>	

- Led members in analyzing about 100 survey results involving living costs and satisfaction levels from the Guatemalan civilians using multi bar charts in MS Excel
- Creating new survey which will be used in the next post-monitoring trip to evaluate the organization's progress in Guatemala
- Created and presented posters university competitions throughout the northeast

WORK EXPERIENCE	Golf Galaxy, Paramus, New Jersey	June 2015 - September 2016
	<i>Sales Associate</i>	

- Generated about \$25000 daily during golf season while collaborating with the store merchandiser to update store displays
- Assisted 200 customers daily with purchasing apparel, clubs, laser rangefinders, and GPS watches

ACTIVITIES	Society of Women Engineers (SWE)	September 2014 - September 2015
	<i>Mentee</i>	

- Collaborated with members in deciding weekly meeting topics
- Partnered with a mentor who eased the challenging transition from high school to college

	Stevens Institute of Technology, Hoboken, New Jersey	July 2013 - August 2013
	<i>Student</i>	

- Experimented with electroencephalograms to determine how they could be used in medicine as part of the Steven Summer Pre-Med Engineering Program
- Presented research with 3 other students about the group's experience with the Emotiv SDK to peers and supervisors