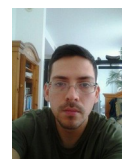


**GUILLERMO MATRANCA**  
GMATR001@PROTON.ME PH.#(786)524-4113



## EDUCATION

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**Florida International University** **Miami, Florida**  
*B.S. in Physics with a Minor in Mathematical Sciences*  
*Graduation date- May 1, 2007*

**Florida International University** **Miami, Florida**  
*M.S. in Solid State Physics*  
*Graduation date- June 14, 2012*  
*Link to Thesis- <https://gmatr001.github.io>*

## COMPUTATIONAL SKILL SETS

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**Link to some of my source code and analysis - [My Repository](#)**

### **Kubernetes**

*An orchestration tool that manages microservices in pods and stabilizes the workloads of the application. The nodes in kubernetes (k8s) are handled as an operator with its API server.*

### **Building LAMP stack with CMS**

*A webserver including PHP modules for dynamic webpages with the help of content management systems like Wordpress and Drupal (I also used turnkey solutions for Linux).*

### **System Administration on a Debian system**

*Configured the network infrastructure (BIND and DNS) and managed traffic and system processes on Debian OS (also on Ubuntu, and RedHaT OS).*

### **Reading documentation (RTFM)**

*Capable of searching for the correct documentation of a program and reading it coherently (if the manual is coherent).*

### **Matlab and Mathematica**

*I used these higher-level languages to obtain solutions in Linear Algebra, Statistical Physics, Quantum Mechanics, and Analysis for the stock market.*

### **Configuring Kernels**

*Access Linux kernels and configure them to improve performance on particular drivers.*

### **HTML and CSS**

*Used several templates with this markup language to provide aesthetically pleasing webpages.*

### **FORTRAN and C++**

*I wrote code in these programming languages to compute and analyze models for physics and other systems like the stock market.*

### **Object Oriented Design in JavaScript and C++**

*Built Classes and Inheritance.*

### **MySQL, MariaDB**

*Knowledgeable in creating databases.*

### **Python with PiWheels**

*I used piwheels' repository to build crypto coins.*

### **Cryptography**

*I studied Hash functions, Trapdoor function. SHA-1, SHA-256, SHA-512, SHA-\* , MD-5, RSA Algorithm.*

## **WORK EXPERIENCE**

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### **Baishanlin**

**Guyana**

*Project Manager/Data Analyst*

*May 2019- May 2022*

- A mining company where I managed, with a geologist, a team of labor workers in the mining sites to mine gold (Other natural resources like bauxite and diamond were considered for future projects.). I also provided data that we observed and analyzed to our investors and propose future investments of the companies' land.

### **Miami Dade College-Wolfson/**

**InterAmerican Campus**

**Miami, Florida**

*Adjunct Faculty*

*August 2015 - January 2019*

- Lecturing Physics without Calculus combined with Lab (PHY 2053 and PHY 2053L), Basic Physics (PHY 1025), Energy in the Natural Environment (PSC 1515) and Astronomy (AST 1002).

**Law Enforcement Officers Memorial**

**High School**

**Miami, Florida**

*Interventionist*

*March 2017 - June 2017*

- I facilitate and monitor the delivery of specified interventions and assessments related to student achievement for Math and Science.

**Claumar**

**Miami, Florida**

*Administrative/Executive assistant*

*August 2011- March 2017*

- A wellness center for health and beauty. Assisted in product inventory, managed regulations and policies from the city of Coral Gables, interviewed clients, managed advertisements.

**Universal Public Adjusters**

**Miami, Florida**

*Insurance Public Adjuster*

*September 2014-March 2016*

- I handle residential, commercial, and aviation property claims. I represent losses for the insured so they can receive a maximum recovery on their claim.

**ASPIRA of Florida Charter School**

**Miami, Florida**

*Science Teacher*

*April - June 2014*

- I was a teacher for 7<sup>th</sup> grade General Science class. I taught basic principles for fields in Chemistry, thermodynamics, and electricity.

**W.R. Thomas Middle School**

**Miami, Florida**

*Mathematics Teacher*

*November 2013-March 2014*

- Taught advance math for 7<sup>th</sup> and 8<sup>th</sup> graders in a new program called iprep math.

**Miami Dade College-Wolfson Campus**

**Miami, Florida**

*Adjunct Faculty*

*January - August 2013*

- Lectured General Education Physical Science (PSC 1121) and Energy in the Natural Environment (PSC 1515).

**Switch On (F.I.U)**

**Miami, Florida**

*Teacher*

*Summer 2007*

- A state funded program for residential high school students during the summer to learn physics.

**CHEPREO (Center for High Energy Physics Research & Education Outreach)**

**Miami, Florida**

*Fellow, tutor, and teacher assistant*

*January 2005 - May 2007*

- A program that applies a different approach to learning Physics I & II.

**Education Outreach****Miami, Florida***Trainee**Summer 2005*

- A summer workshop that teaches the modeling approach in Physics education.

**CCS (Creating Culture in Science)****Miami Dade College-Kendall Campus****Miami, Florida***Tutor**Fall 2002 - Summer 2003*

- Tutored Calculus I & II and Chemistry I & II.

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**TRAVEL EXPERIENCE**

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**Wuhan National Laboratory for Optoelectronics****Hubei, Wuhan***Establishing Collaborations on Electronic and Optoelectronic Nanomaterial Research**Summer 2011*

- Presented my research and participated in their active research which involved synthesis and applications of carbon nanotubes and semiconducting nanowires in optoelectronic device. [NSF Award](http://www.nsf.gov/awardsearch/showAward?AWD_ID=1043033&HistoricalAwards=false)

[http://www.nsf.gov/awardsearch/showAward?AWD\\_ID=1043033&HistoricalAwards=false](http://www.nsf.gov/awardsearch/showAward?AWD_ID=1043033&HistoricalAwards=false)

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**EXTRACURRICULAR ACTIVITIES**

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**Society of Physics Students (SPS)***Spring 2005 - May 2007*

- Active member in the FIU chapter

**Gambling / Investing**

- Forex, Crypto, Webull, Poker, Baccarat, BlackJack.

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**VOLUNTEER EXPERIENCE**

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**FIU Public Program Star Party***Fall 2006*

- Assisted in setting up "Women in Astronomy" event

**FIU Physics Open House to High School Students***Spring 2005*

- Mentored high school seniors interested in physics.

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**LANGUAGES**

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- Bilingual - Fluent speaker and writer in Spanish.
- Computer Languages - FORTRAN, C++, MySQL, JavaScript, LaTeX, HTML and CSS, Python, Perl.

## REFERENCES

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Dr. Yuehai Yang a.k.a John	Natural Science <i>Department, OIT</i>	813-480-8960
Dr. Yi Li	C.E.O and Founder of Renogy	305-496-2012
Dr. Xuewen Wang	<i>Department of Physics, FIU</i>	305-348-3956
Dr. Richard Bone	<i>Department of Physics, FIU</i>	305-348-3082
Dr. Brian Raue	<i>Department of Physics, FIU</i>	305-348-6073
Dr. Wenzhi Li	<i>Department of Physics, FIU</i>	305-348-7257
Dr. Jiandi Zhang	<i>Department of Physics, LSU</i>	225-578-4103
Dr. Jorge C. Gibert	<i>Natural Science Department, MDC</i>	305-237-3025