

Maria E. Bendana

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Education

HARVARD UNIVERSITY

B.Sc. in Mechanical Engineering; GPA: 3.50/4.00; GRE Math: 170/170, Verbal: 164/170

Cambridge, MA

May 2014

ST. JOHN'S SCHOOL

GPA 4.0; Presidential Scholar, National Honor Society, AP International Diploma, AP Scholar with Honors

Tumon, GU

May 2010

Relevant Experience

MORGAN STANLEY

Latin America Economics Analyst, Institutional Investor Ranked Team

New York, NY

June 2014-Present

- Helped create and maintain economic models for 6 LatAm economies by analyzing primary research data and available datasets
- Co-authored multiple LatAm macroeconomic reports and presentations for distribution to external and internal clients
- Discussed investment implications of local and international economic trends, news events, administration and policy changes with 40+ clients in person, on the phone, and through email correspondence, including work travel to Brazil
- Regularly collaborated with Sales, Trading, and Research desks in Equities and Fixed Income to deliver innovative insights to clients

NATIONAL OILWELL VARCO

Mechanical Engineering Intern

San Antonio, TX

Summer 2013

- Designed a three-axis fiberglass pipe and fittings winder for the company's research and development department
- Used CAD software and mechanical analysis to design the machine's principal structure, transmission and drivetrain, emergency stop mechanisms to ensure system robustness and reliability; communicated designs to technicians and senior engineers
- Designed a creel rack and winch stripper safety system; both were built and are currently in use by the department

WYSS INSTITUTE FOR BIOLOGICALLY INSPIRED ENGINEERING

Undergraduate Researcher

Cambridge, MA

2012 – 2014

- Designed a laparoscopic surgical instrument system for sensing and displaying grasping forces in order to aid surgeons in force-modulation and to prevent injuries due to excessive grasping force in laparoscopic surgery
- Collaborated with Wyss researchers and surgeons at Brigham and Women's Hospital to help design a surgical robotic tele-manipulation system to increase the accuracy of surgical robotic procedures
- Designed a human-robot user haptic interface with force feedback and multiple tool degrees of freedom to increase procedural accuracy and make the tele-manipulation experience more intuitive for the system operator

ENGINEERING SCIENCES 51: COMPUTER AIDED MACHINE DESIGN

Teaching Fellow

Cambridge, MA

Jan – Dec 2013

- Taught basic design and fabrication principles of mechanical devices through weekly laboratory sessions and office hours
- Trained students in the correct and safe operation of manual and computer controlled machining tools
- Introduced students to an array of engineering hardware, CAD software, and rapid-prototyping methods

HARVARD MICROROBOTICS LABORATORY

Undergraduate Researcher, Recipient of the Harvard College Research Program Grant

Cambridge, MA

2011-2012

- Designed, manufactured, and tested novel multi-stage micro-thrusters and small glider designs to improve the fuel efficiency and range of current micro-aerial robot flight capabilities
- First to demonstrate rocket-powered autonomous flight of micro-aerial robots, at 42 seconds and 35 mN thrust
- Analyzed rocket performance using a combination of programming, motion tracking and data analysis software
- Published as second author in the Robotics: Science and Systems 2012 conference proceedings article on this project

Leadership Experience

HARVARD ENGINEERS WITHOUT BORDERS

Fundraising Co-chair

Pinolito, D.R.

2010-2014

- Collaborated with a team of Harvard students and the members of a rural Dominican village to diagnose, measure, restructure, and expand its collapsed water distribution system
- Presented water-safety education lectures and project progress reports to village leaders and inhabitants
- Raised \$10,000 for the organization through community fundraisers, external partnerships and foundation grants

HARVARD ORGANIZATION FOR LATIN AMERICA

Graduate Outreach Chair (2011-12), **Freshman Representative** (2010-2011).

Cambridge, MA

2010-2012

- Managed social and cultural events for 200 students and professionals, including Latin American alumni reunions, cultural awareness and celebration events, and weekly Latin American community dinners

Skills and Interests

Finance/Computer:

Passed CFA Level 1, Bloomberg, Haver Analytics, EViews, MS Office, Programming in C, R, PHP, JavaScript, SQL, HTML, DAQ/NI LabView, COMSOL (FEA), Arduino, 3D Modeling, 2D Drafting (GD&T)

Language:

Fully bilingual in English and Spanish

Int'l Experience:

NYC (2 yrs), Cambridge (4 yrs), Guam (2 yrs), Miami (7 yrs), Guatemala (10 yrs), Germany (summer)

Interests:

Fitness, Black Belt in Kenpo Karate, Scuba Diving, Hiking