

Monica Torralba

monicatorralba.com

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EDUCATION

NEW JERSEY INSTITUTE OF TECHNOLOGY

Albert Dorman Honor's College
B.S. Chemical Engineering | GPA: 3.457

Newark, NJ
Sep 2013-Present
Expected Graduation: Dec 2017

Honors/Awards/Certifications:

- Saul K. Fenster Innovation in Design Award, Johnson & Johnson Lean Yellow Belt Certified, Dean's List & NJIT Honors Scholarship, AIChE Regional Conference 2015: 1st Place Chem-E-Car Poster Competition, The Most Indispensable ChE: Swiss Army Knife AIChE Award 2014, Robert M. Brown Memorial AIChE Award 2015

SKILLS

- Equipment: Arduino, Gel Electrophoresis, LumiFrac, Instron, B9 Creator 3D Printer, Gas Chromatography (GC), Scanning Electron Microscopy (SEM), UV-VIS Spectroscopy, Optical Microscopy and imaging, IV Probe Systems, DC Sputtering Systems, MultiPrep Systems, and machine workshop tools and equipment.
- Skills: Minitab, SAP, Information Steward, Aspen, MATLAB, AutoCAD, MS Office, Maya, Python.

EXPERIENCE

Optofluidics & Microfluidics Lab | New Jersey Institute of Technology

Undergraduate Research Assistant

Newark, NJ
Jun 2015 – Present

- Designed and 3D printed 20 vacuum chambers and microfluidic devices per week for fluid dynamic experiments.
- Collaborated with research partners to study the fluid dynamics and design variations of thin film dissolution tests.
- Facilitated the development of biosensor devices and training in gel electrophoresis and gram staining protocols.

Industrial Design | New Jersey Institute of Technology

Undergraduate Research Assistant

Newark, NJ
May 2017 - Present

- Developing micro-gravity compatible, automated irrigation system prototypes for cultivating vegetables.
- Utilizing Arduino sensors, Maya, AutoCAD, and Python to build, code, and operate a liquid handling robot.
- Testing performance quality and troubleshooting fluid flow and electrical disturbances.

Infineum USA L.P.

Bayway Co-Op

Linden, NJ
Sep 2016 – Dec 2016

- Analyzed 30 HAZOP items to review the safety of a component unit used for manufacturing motor oil additives.
- Developed a plan for integrating new and updated equipment into the plant lab facility which tests components.

Johnson & Johnson

Wound Care Research & Development Intern

Skillman, NJ
Jun 2016 – Aug 2016

- Developed several test methods and an operational procedure for testing characteristic properties of J&J products.
- Organized and volunteered for an R&D tour for 30+ coops to display on-going and past co-op and intern projects.

Janssen Pharmaceuticals | Johnson & Johnson

Pharmaceutical Supply Chain Co-op | Data Analyst

Raritan, NJ
Jul 2015 - Jan 2016

- Analyzed temperature range discrepancies to prevent product damage for over one thousand pharmaceutical materials.
- Created a simple process to find, connect, and display critical bill of material product data from divided SAP tables.

American Institute of Chemical Engineers | Chem-E-Car

NJIT Chem-E-Car Team Captain

Newark, NJ
Mar 2014 - Jun 2015

- Managed a team of 6 students and coordinated meetings, schedules, budgets, and construction plans.
- Researched and constructed cars with Arduino systems, engines, microbial fuel cells, and lead-acid batteries.
- Created each car's Engineering Documentation Package that included SOP's, safety forms, and SDS sheets.