Daniel Pinto Ramos

MSc Chemistry, BASc Nanotechnology Engineering

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Skills Summary

Technical Skills

- Extensive experience with chemical processes and product development; developed and scaled up three products
- Thorough experience in design of experiments (DOE); developed and optimized processes through industrial lab and design projects from microfluidics to industrial reactors
- Proficient in AutoCAD, creating 2D / 3D engineering drawings and models
- Expertise in materials characterization / development: DMA, FTIR, UV-Vis, SEM, Rheometry, 3D printing
- Application of advanced programming concepts in Python / MATLAB toward testing and automation
- Experience in biomedical field through development of microfluidic biosensor and hydrogel wound dressings

Interpersonal Skills

- Excellent leadership, teamwork and problem-solving skills developed through leading industrial projects, and training / managing laboratory technicians
- Coordinating and planning skills shown through interdisciplinary projects interacting with collaborators, suppliers, and customers
- Strong written and verbal communication skills developed through technical reports and presentations to engineers / scientists and directors; fluent in English and Spanish
- Effectively handling fast paced, stressful environments and situations; quick learner

Work Experience

Product Developer

HP Polymers, Guelph, ON *Jan. - Aug. 2016*

- Created two new and ten modified polymer resins for custom coating products; consulted with customers and suppliers to meet all stakeholder requirements
- Developed SOPs and directed their implementation for quality control technicians and plant operators
- Trained new lab technicians in polymerization procedures, and lab / plant safety
- Led plant safety committee; implemented new guidelines and procedures to improve safety
- Integrated lab systems and resource management with Enterprise Resource Planning (ERP) system (IFS)

Chemical Engineering Assistant

Soochow University, Suzhou, China *Sep. 2014 – Apr. 2015*

- Designed and executed experiments to identify potential process improvements in polymer modification
- Developed Python programs to automate analysis of results, optimize reactor conditions, and calculate heat management / efficiency of industrial reactor
- Created process flow diagrams (PFD), specifications, and 2D / 3D CAD drawings for industrial polymer reactor
- Communicated project progress / results to management and cross functional team (CFT) through presentations and technical reports

Research Assistant

University of Waterloo, Waterloo, ON *May - Aug. 2013*

- Developed, assembled and tested microfluidic biosensor (DNA electrophoresis)
- Designed and built electrical circuit boards for microfluidic biosensor using Eagle
- Created Python graphic user interface (GUI) to control and automate testing of microfluidic device

Hardware Engineer

Ultimate Software, Toronto, ON *Jan. - Apr. 2014*

- Designed and developed robust hardware enclosure for tablet products using AutoCAD
- Identified points of failure in hardware manufacturing process and implemented changes to improve the quality and efficiency of production
- Created Python program to process and analyze tablet diagnostics, producing user-friendly reports
- Developed and assembled electrical circuits for automation of power analysis quality control for tablet products

Education

Master of Science, Polymer Chemistry

University of Toronto *Sep. 2017 – Jan. 2019*

- Team lead on industry project investigating interactions between proteins and polysaccharides in ionic environments; designed experiments exploring large parameter space
- Team lead on interdisciplinary project developing new biocompatible, 3D printable hydrogel to be used in smart patches in biomedical applications such as drug release, pH sensing, and wound-healing
- Presented technical reports and presentations to company founders, principal investigators, and colleagues
- Managed PhD and co-op students; trained team in experimental procedures, safety, and design of experiments
- Teaching assistant (TA) for two organic chemistry labs, instructing 160 students; identified and implemented process improvements in lab procedures to improve both safety and efficiency

Bachelor of Applied Science, Nanotechnology Engineering

University of Waterloo *Sep. 2012 – Apr. 2017*

- Optimized design of new flocculant for water treatment; consulted with industry manufacturer for production cost and scalability
- Winner of Schlumberger-Cellulose Design Competition on Sustainable Nanomaterials for “most commercial potential”

Awards and Achievements

- Winner of GMCA 7th Annual Strategic Management Consulting Case Competition *May 2018*
- NSERC Industrial Experience Award *May 2016*

Activities and Interests

- Coding programs for both personal and professional use; passion for automation
- Enjoy flying small aircraft & gliders, tennis, kayaking, frisbee, skiing/snowboarding
- Reading fantasy novels and technical books/papers to further develop creative thinking and design