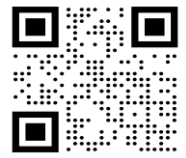


Darian Abreu, Engineer-in-Training

dariannn@udel.edu | (845) 826-1635 | www.dabreu.net | Pomona, NY 10970



EDUCATION

University of Delaware, Newark, DE

May 2017

College of Engineering, Bachelor of Science

Major: *Mechanical Engineering* | Minors: *Electrical and Computer Engineering & Mathematics*

Cumulative GPA: 3.38 | Major GPA: 3.35

Achievements or Awards: 1st Place Design (ADVIA 1800), Environmental Design Discipline Award (Undercarriage Decontamination)

RELEVANT COURSE PROJECTS

Undercarriage Decontamination System – United States Department of Agriculture

- Developed an easy to build, cost-effective, open-source undercarriage decontamination system to disinfect vehicles and prevent disease outbreaks on small farms in the United States by reducing the viral load of a disease by at least 90%

ADVIA 1800 Impeller Drive Mechanism – Siemens Healthcare Diagnostics

- Redesigned Siemens' ADVIA 1800 Clinical System mechanism to allow adjustable horizontal and vertical positions of impeller
- Implemented spring-loaded mechanism with an injection-molded cam through testing using SolidWorks to compose a cost-effective solution to previously fixed single-plane motion impeller capable of handling up to 1800 tests per hour

EXPERIENCE

Skyline Windows, Hasbrouck Heights, New Jersey

July 2021 - Present

Custom Production Supervisor

(previously) Manufacturing/Estimating Engineer / July 2021 – March 2022

- Conducted thorough shop drawing reviews to ensure design feasibility and generate comprehensive factory order packages
- Reviewed and processed over 900 façade projects, including renowned landmarks such as Giorgio Armani's Penthouse, the Hampshire House, Mount Sinai, Ruppert Towers, the Chrysler Building, Harvard, NYU, and One Wall Street
- Provided material takeoffs, financial forecasts, estimations, processing documentation and labor expenses for production
- Oversaw an 1000% increase in the custom department's gross profit the first year, generating nearly \$20 million in revenue
- Wrote extensive Visual Basic .NET scripts to autonomously generate proper window hardware and field installation materials
- Organized OneNote manual for engineering team to constantly collaborate and standardize order entry with real-time updates
- Created dynamic AutoCAD details to efficiently construct muntin elevation drawings for interior, exterior and internal muntins
- Leveraged Excel VBA macros to automate glass pricing, inventory checks and audit financial reports for budget discrepancies
- Eliminated hand-written air & water infiltration testing with VBA-assisted spreadsheet to vastly improve QA/QC data collection

Public Consulting Group, Remote, New York

December 2020 - July 2021

Contact Tracer

- Designed and supervised spreadsheet for team to input, monitor and sort 2400 contacts by quarantine date using Excel
- Managed biweekly data entry of school exposure line lists of over 80 students and staff in liaison with specialist and supervisor
- Presented to 350 members of contact tracing initiative on effects of COVID-19 and reconciling a sustainable society
- Developed technical documentation, managed workflows, and provided training and support to more than 20 employees

Frank's Drywall, Rockland County, New York

June 2019 - November 2020

Construction Manager

- Refined more than 3 process improvements, such as compiling functions for Google Sheet to dynamically generate invoices or estimates and autonomously produce customer-email interaction with PDF attachment

Aquatectonic/Lothrop Associates LLP, White Plains, New York

November 2017 - May 2019

Design/Technical Engineer

- Prepared construction drawings for over 50 commercial pools, spas, steam rooms and water features ensuring adherence to stringent state regulations and approval standards set by the NYSDOH including the 1st zero-entry steel construction wading pool
- Determined equipment specifications, equipment sizing, system filtration designs, utility requirements and hydraulic calculations
- Led the coordination and interpretation of multi-disciplinary drawings resulting in comprehensive plans, sections, details, schedules, consolidated piping layouts, VFDs and P&ID diagrams

SKILLS

- Computer & Software:** Adobe Acrobat, Amazon Connect, Arduino, AutoCAD, Beamchek, Bluebeam Revu, Cambridge Engineering Selector, CommCare, Visual Basic .NET, Excel VBA, GitHub, HTML, JavaScript, Kofax Power PDF, LabVIEW, Linux, MATLAB, Microsoft Office, Microsoft Teams, PLC Programming, PrefSuite: (CAD, Gest, Wise), Python, Revit, SolidWorks (FEA), SQL, PowerBI
- Languages & Communication:** Bilingual in Spanish (Reading, Writing and Speaking), Excellent Verbal, Written and Analytical Skills
- Machining Tools:** Milling Machines, Computerized Numerical Control (CNC), Lathes, Band Saws, Table Saws, Drill Presses, Calipers

ACHIEVEMENTS & COMMUNITY INVOLVEMENT

Engineer-in-Training, State of New York, Certification #1716704

June 2018 - Present

American Society of Mechanical Engineers, Member

September 2015 - Present

American Cancer Society, Volunteer

September 2014 - Present