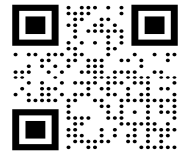


# Darian Abreu, Engineer-in-Training

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## 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: 1<sup>st</sup> Place Design (ADVIA 1800), Environmental Design Discipline Award (Undercarriage Decontamination)

## RELEVANT COURSE PROJECTS

**Undercarriage Decontamination System** – United States Department of Agriculture

- Developed an affordable, open-source vehicle decontamination system to fight disease outbreaks on small farms

**ADVIA 1800 Impeller Drive Mechanism** – Siemens Healthcare Diagnostics

- Upgraded Siemens' ADVIA 1800 chemistry analyzer with a cost-effective spring-loaded cam system (optimized in SolidWorks) enabling adjustable impeller movement for high throughput, multi-directional mixing (1800 tests/hour)

## EXPERIENCE

**Skyline Windows**, Hasbrouck Heights, New Jersey

March 2022 - Present

*Custom Production Supervisor*

- Automated air and water infiltration testing, eliminated error-prone handwritten records by developing a VBA-assisted spreadsheet adhering to ASTM standards for air leakage testing (E547) and water infiltration testing (E283, E331)
- Conducted thorough shop drawing reviews to ensure design feasibility and generate comprehensive factory order packages
- Processed over 1000 façades, including renowned landmarks such as Giorgio Armani's Penthouses, the Hampshire House & NYU
- Mentored and trained a new engineer and salesman on Skyline products and custom engineering processes used in production
- Created dynamic AutoCAD details to efficiently construct muntin elevation drawings for interior, exterior and internal muntins
- Wrote extensive Visual Basic .NET scripts to autonomously create proper window hardware and field installation materials
- Oversaw an 1000% increase in custom department's gross profit first year, producing nearly \$20 million in revenue

*Manufacturing/Estimating Engineer*

July 2021 - March 2022

- Provided material takeoffs, financial forecasts, estimations, processing documentation and labor expenses for production
- Organized OneNote manual for engineering team to constantly collaborate and standardize order entry with real-time updates
- Leveraged macros for glass pricing, inventory checks and audits, minimizing manual errors and improving operational efficiency

**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*

- Streamlined billing process by developing Google Sheets functions for dynamic invoices/estimates that populate pre-designed PDF templates and automate email delivery

**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 1<sup>st</sup> zero-entry steel construction wading pool
- Determined equipment specifications, equipment sizing, system filtration designs, utility requirements and hydraulic calculations
- Led the integration of multi-disciplinary drawings, ensuring a cohesive project with complete documentation

## 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