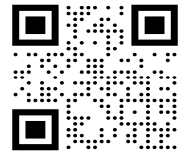# Darian Abreu, Engineer-in-Training

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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: 1st 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)

EXPERIENCE

Skyline Windows, Hasbrouck Heights, New Jersey   July 2024 - Present
Volume Project Engineer
- Collaborated with architects to tailor window and door solutions ensuring optimal fit, functionality and aesthetic appeal
- Thoroughly assessed existing entire building envelopes to identify replacement needs and develop a detailed project scope
- Analyzed field measurements to optimize sizing, minimize manufacturing complexity and improve overall project efficiency
- Proactively planned regular site visits to ensure accurate installation and address any potential challenges promptly

Custom Production Supervisor   March 2022 - July 2024
- 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 Penthouse, 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
- 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 with automated Google Sheets functions for invoices, estimates and email delivery

Aquatectonic/Lothrop Associates LLP, White Plains, New York   November 2017 - May 2019
Design/Technical Engineer
- Prepared CD drawings for over 50 commercial pools, spas, steam rooms and features including 1st zero-entry steel wading pool
- Determined equipment specifications, equipment sizing, system filtration designs, utility requirements and hydraulic calculations

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