IAN C. DUNN

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Education

Rowan University, Glassboro, NJ Expected: May 2019
Bachelor of Science, Chemical Engineering
Mathematics Minor & Honors Studies Concentration
GPA 3.95/4.0, University Scholar, Dean's List, Summa Cum Laude Honors expected

Employment

Sterile Liquids Commercialization Intern, Merck & Co, Inc., West Point, PA 05/2018 - 08/2018

- Authored technical protocols and initiated two formal stability studies for a monoclonal antibody product
- Coordinated technical protocol approval and study execution with cross-functional departments
- Supported drug product changes and regulatory filings by investigating antibody degradation

Scientific Nomenclature Intern, Merck & Co, Inc., Rahway, NJ 05/2017 – 08/2017

- Contributed to multiple projects in the scientific communications center of excellence by building software tools to automate the processing and analysis of large volumes of text data
- Built and deployed an application for screening drug generic names to expedite generic name development
- Supported the launch of a company-wide publication repository by building programs to parse data feeds

Technical Assistant, Dominion Virginia Power, Freeman, VA 06/2016 – 08/2016

- Supported performance testing and validation of a turbine inlet chiller system at a newly constructed plant
- Communicated with vendor engineers, analyzed process data, derived process models from material balances
- Automated data collection, analysis, and visualization with VBA, Python, and MATLAB; programs are still used for performance testing today

Academic Research Experience

Rowan University, Glassboro, NJ

Sustainable Materials Laboratory Research Assistant 09/2016 - present

- Synthesized sustainably sourced resins for 3D printing of high-performance materials; co-authoring publication
- Implemented linear regression model in MATLAB to predict polymer properties from molecular structure; deployed to laboratory researchers and partners at Army Research Laboratory

Systems Medicine Laboratory Research Assistant 09/2017 - 09/2018

- Identified limitations and potential improvements of chemotherapy scheduling processes
- Developed facile gradient-based method for parameter estimation and dosage optimization from patient data

Leadership and Honors

- Chapter President, Tau Beta Pi National Engineering Honors Society 04/2018 – 04/2019
- Outreach Chair, AIChE Rowan University Chapter, 11/2017 – 11/2019
- Coordinator, Rowan University STEM Symposium 11/2017 – 05/2018
- 1st place AIChE Mid-Atlantic Regional Conference Paper Competition 2018
- William L. Maxwell Engineering Undergraduate Scholarship 2018
- James H. Tracey Excellence in Engineering Award 2018
- 1st place AIChE Annual Student Conference Poster Session, Materials Engineering and Sciences Division 2017
- AIChE Donald F. Othmer Sophomore Academic Excellence Award 2017

Technical Expertise

Data Analysis: Python, Visual Basic, Java, SQL, MATLAB

Analytical Techniques: DSC, TGA, GPC/APC, MFI, HPLC, H-NMR, FTIR, DMA, Preparative Chromatography

Software: PI Processbook, Aspen, COMSOL, SolidWorks, AutoCAD