

Nooreen Abdelrahman

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EDUCATION

Rutgers University

Camden, NJ
Aug 2021 – Present

Master of Science in Computational Biology

Lafayette College

Bachelor of Science in Chemical and Biomolecular Engineering
Minor in Biotechnology

Easton, PA
May 2018

UNDERGRADUATE RESEARCH EXPERIENCE

Klein Farms

Easton, PA

Student Researcher

Dec 2017 – May 2018

- Gathered data to provide a commercial scale full process design and economic assessment for installation of a whey purification line
- Assessed the feasibility and provided specific process design feedback to Klein Farms regarding a potential small-scale whey purification process based on the learnings from the commercial design process
- Used ASPEN to generate a flow diagram of the whey purification line
- Collected samples of acid and sweet whey and utilized them in small-scale pilot tests to determine pH
- Researched the equipment needed for a fully functional purification line and wrote a grant to the Chemical Engineering department at Lafayette College, that sponsored the project

Lafayette College Department of Chemical and Biomolecular Engineering

Easton, PA

Student Researcher

Feb 2017 – May 2017

- Researched targeting apoptosis of the T-cells for the treatment of Multiple Sclerosis
- Created presentations and wrote summary reports on data that I gathered from peer-reviewed articles and immunology journals (i.e. Nature Immunology, Journal of Clinical Immunology)
- Harvested, cultured and stained cells from the central nervous system of mice
- Processed CNS cells for flow cytometry using lasers and removed dead cells for accurate analysis
- Studied the role of T-cells in the pathogenesis of MS and T-cell depletion as a proposed therapeutic strategy for Multiple Sclerosis
- Wrote a final report and created a final PowerPoint presentation to discuss and present my research

Lafayette College Department of Chemical and Biomolecular Engineering

Easton, PA

Student Researcher

Sept 2016 – Dec 2016

- Conducted a research project on the evaluation of a PFR-CSTR system in series and effects of pre- and post-mixing using NaOH and crystal violet dye
- Programmed a random run order using Minitab to determine different flow rates and residence times for each trial
- Wrote a final report describing in detail the objective, summary, experimental plan, results and discussion, statistical analysis and future recommendations of the research project

International Paper, Research and Development Department

Lima, OH

R&D Intern

Jun 2016 – Aug 2016

- Conducted research in the plant to improve the inefficiencies in the manufacturing processes
- Planned, implemented, and coordinated the building of a hydraulic lift table, using Google Docs, Evernote and SketchUp, to make transporting workloads an easier, faster and more automated process
- Performed a gap analysis, using Excel, to demonstrate that lift table increased the overall efficiency of the manufacturing plant
- Provided project administrative support, in coordination with other research staff, to facilitate communication with the plant workers and supervisors, and maintain project confidentiality

Lafayette College Department of Chemistry

Easton, PA

Student Researcher

Jun 2015 – Sept 2015

- Conducted research to test the organic acid content of the hemolymph of Schistosoma mansoni-resistant and susceptible strains of Biomphalaria glabrata using HPLC methods
 - Assisted in maintaining and feeding snails
 - Extracted samples of hemolymph and dissected tissue extract samples from the snail body from the pericardial region of the snail
 - Extracted carboxylic acid from the dissected tissues using a 50% Ringer's solution
 - Prepared standards of organic acids to be used in the HPLC analysis and obtained chromatograms of the acid standards to determine the retention time of each acid
- Used MATLAB and Excel to generate calibration graphs and perform quantitative analysis

POSTGRADUATE PROFESSIONAL EXPERIENCE

Suvoda LLC.

Portland, OR

Design Consultant

Jan 2020 – May 2021

- Designed custom interactive response technology (IRT) software as a service (SaaS) managing patient treatment assignment and drug supply chain optimization to meet client business and study requirements based on the immunology/oncology clinical trial protocol, Suvoda work order, and external specification review meetings
- Main point of contact for all internal and external IRT system design-related questions throughout the software development life cycle (SDLC)
- Led external client reviews of the IRT design specifications and supporting documents, implemented any required updates and obtained both client and internal design approval within the established timelines
- Managed the design of data transfer integrations between IRT and other eClinical software systems
- Led client user acceptance testing (UAT) of the IRT system; tracked any additional functional requests and coordinated with the project manager to determine timelines for the applicable system updates.
- Led the re-design and implementation of IRT system features as needed during the maintenance phase
- Traveled to client sites to attend study-wide investigator meetings or press conferences and conducted end-user training sessions
- Trained and mentored new staff members on the products and processes of Suvoda

Suvoda LLC.

Greater Philadelphia Area, PA

Associate Project Manager

Jun 2018 – Dec 2019

- Worked as part of project team to deliver custom software solutions that streamline the clinical trial process for pharmaceutical and biotech clients
- Liaised with the client to discuss requirements, handle issues, provide status updates, and answer questions
- Managed project schedules and scope, tracking all internal and client tasks required to meet project milestones
- Received training on critical reading of clinical protocols
- Managed the cross-functional project team's schedule and task assignments
- Documented all requirements and participated in internal and external specification review meetings
- Ensured client satisfaction throughout the project build and maintenance phase, working with Suvoda management, the Suvoda product team, and business development as needed
- Provided system training to end users as well as telephone and email support to system users globally
- Traveled to client sites to attend meetings and conduct user training sessions

INTERNSHIP EXPERIENCE

PepsiCo

Cairo, Egypt

Quality Assurance Intern

Jul 2017 – Aug 2017

- Gained a good understanding of the good manufacturing practice (GMP) and good laboratory practice (GLP) through intensive training, workshops and HAZOP (Hazard and Operability) training
- Worked on product development and quality testing through ensuring that the products meet the requirements of the Food Drug Administration (FDA) and the Egyptian Ministry of Health

GlaxoSmithKline (GSK)

Cairo, Egypt

Manufacturing Engineering Intern (evening/night shift)

Jun 2017 – Aug 2017

- Worked on industrial water purification and became familiar with the four steps of water purification: coagulation, sedimentation, filtration and disinfection
- Collected water samples and conducted statistical analysis to analyze the water quality data via Microsoft Excel
- Assisted in running a gap analysis for the water facility to identify the gaps that they had with respect to wastewater management and establish more cross-sectoral integration

TEACHING EXPERIENCE

Lafayette Initiative of Malagasy Education

Antananarivo, Madagascar

Tutor

Jan 2017

- Participated in a peer-to-peer mentoring program between Lafayette students and high school students from Madagascar to prepare the latter for the process of applying to colleges in the U.S.
- Worked with Malagasy students identified by the United States Embassy over a 1.5-year period, that started in person during the three-week trip to Madagascar that constitutes this course

Lafayette College Department of Foreign Languages

Easton, PA

Supplemental Instructor

Sep 2016 – May 2018

- Served as a Supplemental Instructor for Intro to Arabic and Intermediate Arabic courses with enrollment of 36 students
- Attended all classes, held 2 review sessions weekly, answered students' questions, offered study tips for exam preparation
- Provided one-on-one tutoring to students who needed additional help and support

HONORS & AWARDS

ProfessorCarolynn Van Dyke Prize

May 2016

- Awarded annually to a well-performing student, with a demonstrated financial need, majoring in a STEM field to provide funds for a summer learning experience

SKILLS

Laboratory: Cell culture, Gas chromatography, liquid chromatography, Batch Distillation, Heat Exchanger, 3D Printing, Packed Bed

Software Programs: MATLAB, Minitab, Polymath, SQL, IRT (Interactive Response Technology)

Languages: Arabic, English, French

LEADERSHIP ACTIVITIES

Lafayette College Admissions

Easton, PA

Senior Interviewer

Aug 2017 – May 2018

- Conducted approximately 150 in-person interviews with prospective students applying to Lafayette College.

Muslim Students Association

Easton, PA

Vice President

Aug 2016 – May 2017

- Worked with Student Government and various other departments to collect funds
- Led the renovation of the prayer room to provide a space for Muslim students to pray on campus
- Organized campus events and invited prominent Muslim speakers, advocates and journalists to speak on campus

VOLUNTEER ACTIVITIES

Portland Refugee Support Group

Portland, OR

Volunteer

Feb 2020 – June 2021

- Tutors both families or individuals, adults or children, once per week. Most of the time is focused on tutoring English, Math and Science to children and helping with their schoolwork. The goal is to help families feel confident in their use of the English language to help them integrate into American society with greater success

Boys and Girls Club of Easton

Easton, PA Volunteer

Sept

2017 – Apr 2018

- Tutored elementary school kids in the underprivileged communities of Easton, helped them with homework and schoolwork

SCIENTIFIC SOCIETIES

American Institute of Chemical Engineers (AIChE)

2014 –

Present

Society of Women Engineers (SWE)

2015 –

Present