JACOB BELDING

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WORK EXPERIENCE

The Ohio State University Department of Chemistry X-Ray Diffraction and UV-Visible Spectroscopy Technician
January 2019 – Present

- Performed XRD and UV-Vis and used software to analyze data to characterize synthesized perovskite compounds
- Used spin coating and other lab techniques to prepare materials for use in solar cell construction
- Worked closely with chemistry students to teach and encourage interest in solar energy research

Procter & Gamble Packaging Development R&D Intern
May 2018 – August 2018

- Performed competitive analysis, including large-scale data collection and analysis, to deliver valuable insights
- Coordinated with external suppliers and contractors to achieve project objectives, demonstrating leadership
- Led design of new packaging, including ideation, concept drawing, 3D modeling, and prototyping
- Worked directly on-site with bottle manufacturers to perform production trials for a sustainability initiative to introduce the use of post-consumer recycled plastic
- Delivered project results through an in-depth final presentation to packaging leadership and employees

Battelle Memorial Institute Lab Analyst for GoPIT
June 2017 – May 2018

- Displayed strong communication skills by writing lengthy and detailed daily progress reports
- Showed problem solving ability through development and revision of new lab procedures
- Modified living cells using CRISPR gene-editing, including engineering antibiotic resistance
- Contributed to bioengineering research project by applying knowledge of science and engineering
- Demonstrated ability to learn new skills rapidly while engaging in a fast-paced work environment

EDUCATION

The Ohio State University Columbus, Ohio
Bachelor of Science in Chemical Engineering, GPA 4.00, Expected Graduation May 2021

ACADEMIC PROJECT EXPERIENCE

FEH Nanotechnology and Microfluidics Design Project
January 2018 – April 2018

- Designed, concept modeled, and 3D printed a nanotechnology-based lab-on-a-chip device with the goal of detecting and diagnosing Celiac disease from a single drop of blood
- Conducted a microfluidics-based yeast cell adhesion experiment based on independently designed procedure
- Wrote a computer program in C++ to perform fluid mechanics calculations, increasing productivity

SKILLS

Lab and Analytical: CRISPR, Cell Culture, Powder XRD, UV-Vis Spectroscopy, ISTA Testing, Competitive Analysis
Programming and Software: C, C++, Java, MATLAB, HTML, LaTeX, Excel, Photoshop, Illustrator, InDesign
Engineering Design: Solidworks, Technical Drawing, Technical Writing, 3D Printing, Extrusion Blow Molding
Language: English, fluent; Spanish, Limited Working Proficiency

HONORS & ACTIVITIES

Eminence Scholarship at The Ohio State University

- Full cost of attendance fellowship awarded to 20-25 who showed strength in research, leadership, and service

American Institute of Chemical Engineers (AIChE)

- Professional Events Coordinator, leading a committee to plan professional development events

The Right Click

- Technology chair and co-founder of student organization that aims to increase technological literacy in the Columbus community by refurbishing and donating e-waste and by targeted tech literacy education programs