Henry Diehl

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EDUCATION

Texas A&M University — **College Station, Texas**
Bachelor of Science in Chemical Engineering — *May 2023*
College of Engineering — *Cumulative GPA: 3.79/4.00*

PROFESSIONAL EXPERIENCE

Ascend Performance Materials — **Pensacola, Florida**
Manufacturing Engineer Intern — *May 2021 – Present*

- Collaborated with maintenance, operations, and environmental disciplines to effectively implement new flow control valve to improve reliability of nylon utilities sector for increased material production
- Utilized organic chemistry, thermodynamics, and fluid dynamics knowledge to solve overflowing cooling water break tank in therminol heat exchange fluid recycle system
- Trained in Microsoft Azure for machine learning applications and utilized Power BI for visualization of cutter equipment life, nitrous oxide emission reduction, and relative viscosity prediction from 200 variables

Texas A&M University — **College Station, Texas**
Undergraduate Student Researcher — *February 2021 – Present*

- Applied material science and chemical engineering concepts of lap shear mechanical testing, radiofrequency heating and curing, and thermodynamic properties to carbon nanocomposite adhesives alongside Dr. Micah Green and Dr. Mazin Mustafa
- Cooperated with automotive manufacturing industry to apply radiofrequency heating and curing to replace current systems of infrared heating, reducing plastic deformation of car parts

SPEA America — **Tyler, Texas**
Quality Electrical Engineer Intern — *June 2019 – Aug 2019*

- Converted customer circuit board schematics into manufacture-ready quality assurance software to be used alongside SPEA automatic test equipment for a multitude of technology and automotive industries
- Merged conflicting classification software with the use of Python and Visual Basic

The University of Kansas — **Lawrence, Kansas**
Pharmaceutical Chemistry Research Assistant — *January 2019 – May 2019*

- Synthesized proteins in Blood Brain Barrier alongside Dr. Teruna Siahaan and Dr. Brian Kopec
- Contributed to the textbook chapter "Organization of the Intestinal Mucosa and Barriers to Oral Drug Delivery" in "Nanotechnology for Oral Drug Delivery"

PROJECTS/LEADERSHIP EXPERIENCE

Scientific Patent Development — **Remote Work**
Co-Founder — *Aug 2018 – Present*

- Applied knowledge of physics, calculus, and chemistry, to develop a solution to an ongoing problem in research
- Designed advanced AutoCAD and Autodesk Inventor parts, assemblies, and drawings for 3D Printing
- Gained roots of artificial intelligence with TensorFlow requirements for the project's succession
- Increased industry and marketing background to have a significant profit

FIRST Robotics — **Prairie Village, Kansas**
President — *August 2016 – May 2019*

- Led an organization of 30 students for the creation of a competitive hydraulic-powered automotive robot
- Delegated tasks among teams of programming, build, drive, and finance for an efficient work pace
- Refined a Java and C++ curriculum for students who had passion for learning programming fundamentals

SKILLS, ACTIVITIES & INTERESTS

Technical: Technical Writing, AutoCAD, Autodesk Inventor, Cura, Python, Visual Basic, Photoshop, WordPress, Microsoft Azure, Power BI, Aspen Process Explorer, Provox, DeltaV, IntelaTrac, Sharepoint, Microsoft Office
Extracurricular: American Institute of Chemical Engineers, Aggies Invent, Debate, Auto-Research, Eagle Scout
Interests: Business Development, Technology, Semi-Conductors, DOD, 3D Printing, Metal-Work, Public Speaking