Trenner Jones

812-431-2585 | trenner.jones@gmail.com | trennerjones.com | linkedin.com/in/trennerjones

Work Experience

Becton Dickinson (BD), Branchburg, NJ — Nov 2024 – Present

Mechanical Engineer I – Combination Products (Contract)

- Led design verification studies for autoinjectors and multi-dose pens, evaluating essential drug delivery outputs (EDDOs) to evaluate product performance and regulatory compliance
- Analyzed mechanical test data and led root cause investigations to resolve performance issues and inform design improvements
- Collaborated with senior engineers to design, prototype, and test custom fixtures to characterize performance of various autoinjectors, pens, and on-body injectors
- Authored test protocols, design verification reports, and engineering summaries, delivering data-driven device performance insights to cross-functional teams and external clients
- Delivered data-driven device performance insights to cross-functional teams including engineers, researchers, and non-technical stakeholders
- Conducted performance testing of combination products per client specifications and ISO standards

AbbVie, North Chicago, IL — June 2023 – Aug 2023

Operations Intern – Global Facilities Engineering

- Calculated air volume ranges, velocity, and pressure for laboratory HVAC system based on exhaust requirements and duct sizing, demonstrating need for a 35% increase in air supply
- Developed construction documents guiding removal of three non-operational air handling units and utilities, freeing 500+ sq. ft. for system upgrades
- Verified and updated HVAC systems drawings to reflect field conditions, converting 12 outdated manual drawings into revised digital formats to be utilized in remodeling and upgrading of laboratories
- Designed and developed detailed construction documents for an HVAC controller testing area, enabling evaluation of control schemes prior to implementation

Pfizer, Sanford, NC — May 2022 – July 2022

Biotech Intern – Equipment Validation

- Revised and field-verified engineering drawings of fermentors, generating 20+ P&ID drawings, reducing equipment requalification time by 15%
- Assisted in re-qualification of autoclaves and fermentors to evaluate performance of equipment
- Compiled and analyzed re-validation data for site-level computer systems in Microsoft Excel, creating a centralized repository to improve efficiency

Skills

CAD: SolidWorks, PTC Creo, Fusion 360, AutoCAD, Autodesk Inventor, Siemens NX

Prototyping & Manufacturing: 3D Printing, Laser Cutting, Lathe, Mill, CNC Machining

Data Analysis: Minitab, Python, MATLAB, Microsoft Excel, LabVIEW, Statistical Analysis

Other: GMP Documentation, Technical Writing, Root Cause Analysis, Project Management, Human Factors

Education

Purdue University, West Lafayette, IN — Aug 2020 – May 2024

B.S. in Mechanical Engineering, Minor in Design & Innovation