

BRYAN M CHUA

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Automation Engineer with advanced technical skills at the intersection of biopharmaceutical manufacturing and big data analytics to timely design and implement high impact solutions in cross-functional teams to support business operations.

Education:

Dual Degree: B.Sc. in Chemical Engineering, B.Sc. Environmental Science (Honors)

University of Massachusetts Amherst, USA

Graduated May 2019

Integrated Concentration in Science (iCONS) in Renewable Energy

Experience:

Bristol-Myers Squibb

Devens, MA

Automation Engineer (DeltaV)

May 2019-Present

- Programmed and configured complex DeltaV changes (change requests, product changeovers, Corrective and Preventative Actions (CAPA)) to manufacture life-saving drugs for patients (multiple myeloma and rheumatoid arthritis)
- Supported Commercial Manufacturing through 24/7 on-call support for DeltaV and automation-related troubleshooting
- Led DeltaV Operate interface changes to reduce downtime and improve end-user experience for Clinical Manufacturing
- Supported audit operations through SQL querying and OSIsoft PI for rapidly generating alarm and event reports
- Developed in-house training materials for onboarding new hires to start contributing towards projects within first week
- Completed Emerson DeltaV, OSIsoft PI System Admin, Validation, Bioprocessing, and Six Sigma Yellow Belt training

Shire Pharmaceuticals

Lexington, MA

Validation Engineer Intern

May 2018-Aug 2018

- Wrote Validation Maintenance 3D Risk Assessment SOPs and presented to Shire Senior Management.
- Consulted with manufacturing leads, system owners and end users to maximize efficiency of the Periodic Requalification of the site's many environmental chambers and manufacturing systems, saving significant man-hours.
- Assisted with the launch of GoPro-enabled airflow visualization smoke studies to validate compliance in worst-case scenario tasks in ISO 5 biopharma manufacturing environments.
- Assisted Automation Engineers with failure modes analysis (FMEA) of automated roller bottle manufacturing systems.
- Completed cGMP PPE/Gowning training, GDocP, GAMP, confined space entry, LEAN manufacturing/Six Sigma, biochemical lab safety for ISO Cleanroom Class 5-8 environments. Learned IQ/OQ/PQ and SIP/CIP processes.

Radix Engineering and Software

Houston, TX

Data Engineer Intern

Jan 2018-Apr 2018

- Designed and maintained OSIsoft PI Coresight/Vision Dashboards to optimize energy efficiency, reliability, and financial decision-making for the Central Heating Plant, incorporating data from 20 MW turbine, boilers and new 4 MW solar arrays (using Honeywell process control systems and OSIsoft data acquisition systems interfaced with Excel)
- Troubleshoot PI Asset Framework errors using mass balance, energy balance, and thermodynamics calculations.
- Validated data points from thousands of instrumentation data in 2.4 mil MMBtu/year energy systems campus-wide.
- Drafted Piping & Instrumentation Diagram (P&ID) for new Continuous Emissions Monitoring System (CEMS).

Skills:

- DeltaV, PLCs, OSIsoft, SQL, Python, R, Javascript, C, CAD, MATLAB, Aspen, LabVIEW, Arduinos, 3D-printing, MS Office
- Cell Culture, Fluorescent Imaging, Mouse Dissection, Organ Preservation, Histological Staining, Microfluidics and Device Fabrication, Fermentation, Separation, Purification, Analytical Chemistry, Polymer Extrusion, Gas Chromatography

Relevant Coursework:

Bioprocessing, Drug Design, Senior Lab, Honors Thesis Project (Portable WFI Medical Device), Process Controls, Process Design, Polymer Science, Physical Chemistry, Toxicology, Makerspace Leadership, and Lab, Fire and Biological Hazard Safety

Leadership and Activities:

Co-founder and Mentor, Sustainability Projects Abroad

Jan 2017-Present

- Created bilingual disaster relief assessments for disaster-response in July 2018 Lombok Earthquake
- Planned 2018 disaster relief trip to Puerto Rico and distributed 100 water filters and documented damage using drone

Honors and Grants:

- 21st Century Leader Award – University of Massachusetts Amherst Commencement 2019 2019
- MassCEC Best CleanTech, Verizon Communication Award, Berthiaume Entrepreneurship – *HackUMass V* 2017