

Alejandro Villanueva

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LinkedIn: bit.ly/aav-linkedIn | Portfolio: bit.ly/aav-portfolio | GitHub: bit.ly/aav-github

Full-Stack Web Developer

Full-Stack Web Developer with a robust background in Chemical Engineering. Certified in Full Stack Web Development from the University of Washington Coding Bootcamp. Adept at innovative problem-solving, project management, and full-cycle software development. Proven leadership in engineering projects with a focus on developing scalable web applications and optimizing processes. Seeking to leverage engineering expertise and coding skills to transition into a Software Engineering role.

TECHNICAL SKILLS

Languages: JavaScript (ES6+), CSS, HTML, SQL

Frameworks: React, Express.js, Bootstrap

Tools: Git, MongoDB, MySQL

Methodologies: Agile, Scrum

PROFESSIONAL SKILLS

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|-------------------------------|-------------------|-----------------------|
| ▪ Project Management | ▪ Problem Solving | ▪ Strategic Planning |
| ▪ Data Mining & Visualization | ▪ Quality Control | ▪ Process Engineering |

PROFESSIONAL EXPERIENCE

AGC Biologics, Bothell, WA

Dec 2019 - Present

Global Process Engineer IV

Global Process Engineering Lead supporting network of sites for large scale expansion projects.

Project Management:

- Project Manager for \$5MM facility upgrade project, managing construction, equipment and facility qualification and validation. Delivered project through various challenges including workforce reduction that impacted a significant portion of the project team.
- Collaborate with construction management contractor including bid review and primary contractor selection, and managing subcontractors / trades throughout demolition, construction, and qualification phases of the project.
- Subject Matter Expert for specification of new purchased equipment (such as bioreactors with associated pumps, sensors, and automation), work closely with equipment manufacturers to ensure the purchased systems will be appropriate for the intended use of the manufacturing site, including execution of Factory and Site Acceptance Testing.

Technical Expertise:

- Support new facility construction projects throughout the global network as a technical resource for review and approval of engineering design and drawings, ensuring compliance to latest regulatory guidance and industry best practices.
- Developed Global Engineering Standards for applicable engineering areas (Commissioning and Qualification, Equipment Specifications)
- Delivered new equipment sets to existing manufacturing suites, including leading cross-functional team to install, qualify, and release the new equipment to GMP manufacturing.
- Improved equipment control capability through control loop optimization, as technical lead and author of testing protocol, leading to better control of quality critical process parameters.

Eli Lilly and Company | Senior Process Engineer | Indianapolis, IN

2013–2019

Delivered exemplary technical process engineering support for multiple plants, while collaborating with a highly motivated cross-functional team.

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Leadership:

- Exhibit leadership expertise to manage key projects from inception to completion, while ensuring their delivery within time and budgetary constraints.
- Adeptly execute numerous capital projects (valued at less than \$5MM) focused on enhancements in the manufacturing space through driving yield, reducing cycle time, and minimizing manufacturing costs.
- Serve as a mentor to less experienced engineers and scientists in applying data monitoring/visualization tools; maintaining compliance with global standards; and consistently utilizing good engineering practices.
- Collaborate with external partners and contractors to ensure seamless project implementation.
- Function as the Lead for Men as Allies for the Women's Initiative for Leadership.

Industry Expertise:

- Maintain a comprehensive knowledge of various unit operations encompassing reactions, chromatography, tangential flow filtration, and evaporation.
- Leverage expertise in front/back end process engineering steps, while ensuring compliance to applicable corporate global engineering standards.
- Act as a subject matter expert by establishing Process Validation (PV) protocols in support of PV campaigns for new products in multiple manufacturing plants.
- Function as a technical process engineering representative in process hazard analyses and perform lead root cause analysis for health, safety, and environmental (HSE) incident investigations.

Strategic Planning:

- Significantly slashed manufacturing costs for projects delivered, with annual savings of \$10-150K for each project.
- Realized over 95% uptime at the bottleneck step in the plant through increasing equipment reliability.
- Maintained optimal safety (ergonomic, chemical exposure) for personnel in the work environment during operations.

PROJECTS

- WETF | Website for non-profit jazz radio station** GitHub: bit.ly/aav-WETF-gh Deployment: bit.ly/aav-WETF-render
- Full-stack web application utilizing a MongoDB database and React as a front end framework, built on an Express server.
- myrecipes | Social Media for Foodies** GitHub: bit.ly/aav-myrecipes-gh Deployment: bit.ly/aav-myrecipes-render
- Full-stack web application utilizing a MongoDB database and React.js, built on an Express server.

EDUCATION AND CERTIFICATIONS

2022 | Certificate in Full Stack Web Development | University of Washington
2012 | B.S. Chemical Engineering | Purdue University, West Lafayette, IN