

# BRIAN D. SWARTZ

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## Summary:

Aspiring Full-Stack Web Developer currently enrolled in the University of North Carolina at Chapel Hill Full Stack Web Development Coding Bootcamp with previous experience as a Project Manager, Process Engineer, and Operations Manager. Skilled at troubleshooting, analyzing data, and improving processes and management systems in the petrochemical, nutraceutical, and metal industries

## Core Competencies:

- ❖ Project Management
- ❖ Data Analysis
- ❖ Capital Management
- ❖ Process Engineering
- ❖ Operations Management
- ❖ Compliance Auditing
- ❖ Cause Analysis
- ❖ Training and Talent Development

## Technologies:

- ❖ JavaScript
- ❖ HTML and CSS
- ❖ jQuery and jQuery UI
- ❖ Node.js
- ❖ Web DOM Document API
- ❖ Third Party APIs: moment.js  
Geolocation API
- ❖ Server-side APIs
- ❖ CSS Framework: Bootstrap
- ❖ Version Control: Git, GitHub

## Employment:

FMC

Bessemer City, NC

November 2014 – 2018

### Engineering Manager

- **Project Manager** – Managed a cross-functional project team that designed and executed a project to provide a \$1MM sealing system to the lithium hydroxide finished project dryer.
- **Facility Capital Portfolio Manager**– Implemented systems to develop a 5-year capital plan based on the strategic goals of the business and allocate an \$8.5MM annual capital budget to support that plan
- **Divisional Technology Roadmap Team** - Part of a team that was charged with developing the Lithium Division Technology Roadmap for the next 7-10 years. Worked with a team consisting of Process Technology, Research and Development, and Sales and Marketing representatives from the Worldwide Lithium Group to develop a technology roadmap that will was presented to the Lithium Senior Leadership Team.

Lincolnway Energy LLC

Ames, IA

April 2012 – May 2014

### Project/Process Engineer

- **Project Manager** – Coordinated cross-functional team (Engineering, Compliance, Operations, Construction, Accounting) to develop vision and strategy to convert the fuel mix in support of reducing greenhouse gas (GHG) emission for the facility.
  - Built the business case based on my analysis of true cost of ownership and shifts in US fuel markets including a detailed sensitivity analysis
  - Presented viable alternatives and recommendations to Board of Directors, Chief Executive Officer (CEO), Chief Financial Officer (CFO), and Plant Manager
  - Acted as Project Manager for the two main projects resulting from the analysis.
- **Process Engineer** - Developed systems to collect operations data used in a quantitative model to evaluate and optimize fermentation performance.
  - Collected operational data by pulling data from process database using database API
  - Analyzed operational data using Excel Data Analysis tools (regression and multiple regression)

- As part of the operation performance measurement model, developed innovative ways to increase the reliability of results by creating new independent variables using existing data.
- Created new independent variables to recommend operational changes; increasing corn-to-ethanol yields by approximately 5%.
- Used process historian API to convert from time-based maintenance strategy to a predictive strategy

## Flint Hills Resources

Menlo, IA

April 2007-March 2012

### Plant Manager

- Facility leader accountable for all site operations in a 100 million gallon per year fuel ethanol production facility. Led a team of 6 direct and approximately 50 indirect reports.

### Process Engineer

- Provided process engineering technical expertise for a 100 million gallon per year fuel ethanol facility.
  - Created engineering and operations training curriculum and training materials used to prepare a group of 35 newly-hired employees
  - Optimized unit operations including daily optimization of processes; decreasing raw material waste and energy usage.
  - Created company-wide management system documentation for process safety compliance under OSHA 29 CFR 1910.119 (Process Safety Management).

## Cargill, Inc.

Des Moines, IA

June 1996-April 2007

### Production Manager/Process Engineer

- Managed a team of production and engineering professionals at a soybean oil solvent extraction facility. Notable roles include:
  - **Process Pseudocoding** - Evaluated and improved process control pseudocode and computer interlocks using Distributed Computer System (DCS) documentation. Recommended Provox DCS control system programming changes to improve process uptime and efficiency.
  - **Statistical Model Development** - Improved data quality of plant historian and developed statistical models in Microsoft Excel using plant historian API. Implemented new process control strategies and new product quality targets. Resulted in 8% decrease in energy usage. Model used as the basis for new business unit best practice to maximize product yield.
  - **Equipment database creation** - Created tracking database using Microsoft Access. Created data input forms to aid maintenance personnel in populating the database with operations data.
  - **Patent Valuation** - Created a value for potential purchase of a patented process including sensitivity analysis of key cash flow drivers using Excel Data Tables.
  - **Six Sigma Site Representative** - Designated as the location Six Sigma representative. Attended 40 hrs Green Belt Training. Participated with Business Unit Six Sigma Black Belt on finished product moisture control project.
  - **Automation Documentation** - Created and documented process instrumentation standards for facility. Worked with a preferred supplier to develop a comprehensive document to aid purchasing engineers in procurement of instrumentation and process communication equipment that met current business unit best practices.

## Education

**Full-Stack Web Development Bootcamp**, University of North Carolina – Chapel Hill  
**Masters of Business and Administration**, University of Iowa, Iowa City, IA,  
**Bachelor of Science, Chemical Engineering**, Iowa State University, Ames, IA