

# Alvin Thomas

## Objective

Philadelphia, PA - Email me on Indeed: [indeed.com/r/Alvin-Thomas/c71ab1fbfe6957a4](mailto:indeed.com/r/Alvin-Thomas/c71ab1fbfe6957a4)

An Engineer with 2 years of industry experience integrated within my college curriculum in which I have gained multiple experiences the fields of construction management, pharmaceutical engineering consulting, as well as troubleshooting equipment in a chemical plant facility. I look forward to further expanding my knowledge and applying my experiences to the pharmaceutical industry while receiving more hands on experience in supporting mechanical equipment

## WORK EXPERIENCE

### Associate Plant Engineer Co-op

ASHLAND INC - September 2012 to April 2013

Revised and updated 54 plant equipment folders with adequate information including spec sheets, bid package information, and on-site model details for successful passing of Ashland's triennial OSHA audits

- ◆ Reduced nitrogen consumption by 8.4%, roughly \$5,400/month, by performing utility line walk downs for faulty

pressure regulators throughout the plant and worked with contractors for repairs while specifying orders for replacements

- ◆ Assisted field engineers with construction and start-up of vortex powder separator by integrating process and instrumentation diagrams to current chemical plant layout

### Process Mechanical Engineer Co-op

JACOBS ENGINEERING GROUP - September 2011 to April 2012

Drafted and designed PFD's and P&ID's to define heat and material balance, process specification and sizing for custom

designed skids such as heat and water recovery system, utility and waste treatment systems

- ◆ Created technical specifications and performed technical bid package evaluations for heat exchangers, autoclaves and other cGMP mechanical equipment based on clientele process needs that adhere to pharmaceutical industry standards

- ◆ Increased equipment accessibility to future and current facilities by designing and editing process and instrumentation diagrams

### Mechanical Engineer Co-op

PHILADELPHIA INTERNATIONAL AIRPORT - Philadelphia, PA - September 2010 to April 2011

Inspected contractor's work performance and supervised construction of \$5.1M Emergency Generator Upgrade project,

keeping work-site up to code standards while denoting descriptive progress in daily reports

- ◆ Coordinated project design and implementation acting as liaison between designers, contractors, and upper

management resulting in the successful meeting of deadlines

- ◆ Involved with multiple engineering disciplines by coordinating several concrete tests, hi-pod tests, structural support load

calculations, and static pressure testing

#### Plasma-Assisted Hand Sterilizer Device, Senior Design Project

- Engineered application of plasma-synthesized water molecules for sterilization and increased hygiene compliance
- Constructed plasma generation power supply to integrate to standard hospital 120V wall outlet setting
- Tested non-thermal plasma on various strains of bacteria for efficiency in inducing apoptosis
- Conducted cell cultures, antimicrobial testing, uniform coverage testing, as well as infrared sensor testing

#### EDUCATION

##### **Bachelor of Science in Mechanical Engineering**

DREXEL UNIVERSITY

#### ADDITIONAL INFORMATION

##### Skills

Computer Skills - AutoCAD, Pro/Engineer, ANSYS, PTC Creo, SolidWorks, Matlab, LabVIEW, Google SketchUp, Maple 13, MS Office