

# PHILLIP A. SOUCY

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## ABOUT

Versatile, goal-oriented engineer fluent in material mechanics, seeking to transition to a role incorporating robotics and automation. Broad experiences with fast-paced startups. Skilled in engineering design, technical writing and organization, and practical hands-on work.

## PROFESSIONAL EXPERIENCE

### N12 Technologies, Inc.

#### *Lead Mechanical Engineer, Ohio Operations*

*January 2018 – Present*

- Technical lead and liaison for industrial CVD reactor retrofits and upgrade projects surrounding Ohio manufacturing facility stand-up.
- Managed the design, fabrication and installation of robot-loaded high-temperature conveying system, which enabled a 3x increase in capacity. Project budget of \$0.5M.
- Designed staffing, operational flow, and all support infrastructure for the conveyor.
- Oversaw all simulations performed for engineering team. Worked with external vendors to ensure on-time and on-budget delivery of realistic and reliable results.

#### *Production Engineer*

*May 2017 – December 2017*

- Spearheaded CVD reactor improvement program, resulting in 40-point improvement in production factor of OEE within 5-month period.
- Introduced “customer-focused” internal engineering model; solicited direct feedback from operators, resulting in significant improvement in operator quality-of-work.
- Designed, built, and supported custom laser micrometry equipment for quality control. Allowed production to move away from SEM imaging and reduced feedback time of quality metrics from weeks to minutes.
- Developed, implemented, and maintained CVD reactor maintenance log, which reduced downtime during planned maintenance and problem-solving efforts.

### Massachusetts Materials Technologies LLC

#### *Co-Founder, Research Engineer, Safety Officer*

*March 2015 – April 2017*

- Designed and fabricated proof-of-concept method and apparatus capable of non-destructive evaluation of ductile metal fracture toughness.
- Supported mechanical design team during production phases by proofing technical drawings, sourcing material, milling and turning parts, and assembling sub-assemblies.
- Drafted sections of, created illustrations for, and coordinated submission of 4 US utility patent applications (1 award), as well as several provisional applications.
- Developed and maintained on-site safety program, including Chemical Hygiene Plan.

### Materials and Engineering Group LLC

#### *Engineering Consultant*

*October 2013 – April 2017*

- Developed and implemented evidence teardown procedures, including organizing inspection events hosting several engineering firms.
- Designed, fabricated, and operated test fixtures for exemplar samples to verify failure hypotheses and analytical findings. Recorded and organized results.
- Drafted memos and reports for clients on analytical and experimental results.
- Interfaced with paralegals and attorneys to discuss evidence and technical findings.

### Northeastern University

#### *Master of Science, Mechanical Engineering, Mechanics of Materials*

December 2017 – GPA 3.87 / 4.00

#### *Bachelor of Science, Mechanical Engineering*

May 2016 – GPA 3.76 / 4.00

## SKILLS

Technical Writing



SolidWorks/NX



Sensor Implementation



Engineering Design



Abaqus/CAE



Project Management



## HOBBIES

Cooking

SCUBA Diving

Cycling

Woodworking

Video Games

Guitar

## EDUCATION