Phillip A. Soucy

Contact Information	21 Lee Terrace Arlington, MA 02474	Phone: (781) 698-8032 E-mail: phillip.soucy@gmail.com

Education

Northeastern University, Boston, MA
Master of Science in Mechanical Engineering, Mechanics of Materials — December 2017
Select Courses: Mechatronic Systems, Control Systems, Elasticity and Plasticity, Material Processing and Manufacturing — (GPA 3.87 / 4.0)

Bachelor of Science in Mechanical Engineering — May 2016
Select Courses: Probability and Statistics, Microeconomics — (GPA 3.76 / 4.0)
Awards: 2014 Janet P. Mackie Good Fellowship Award
Honors: Member Pi Tau Sigma, Mechanical Engineering Honor Society

Research Experience

Dept. of Mechanical and Industrial Engineering, Boston, MA
Handgrip Force and Stylus Strain Relationship for Parkinson's Disease Assessment
Graduate Researcher under Dr. A. Gouldstone

- Reduced simplified loading geometry to represent a subject gripping a pen
- Derived analytical equations to represent force-strain relationship for simplified geometry
- Modified equation using results from series of Abaqus/CAE finite element simulations
- Verified equations against analytical and experimental results, to within 10% of solution

Professional Experience

N12 Technologies, Inc., Somerville, MA
Lead Mechanical Engineer, Ohio Operations — January 2018 – Present

- Technical lead and liaison for CVD reactor retrofit projects, internal and external; including design and installation of high-temp. conveyor with robotics
- Designed, built, and supported custom QC equipment to reduce need for SEM imaging of production material; Used daily by technicians and eliminated need for SEM

Production Engineer — May 2017 – January 2018

- Spearheaded CVD reactor improvement program, resulting in 40-point improvement in production OEE performance over 5 months
- Introduced "customer-focused" internal engineering model; solicited direct feedback from operators on projects, resulting in significant improvement in operator quality-of-work
- Developed, implement, and maintained CVD reactor maintenance log, reducing downtime during planned maintenance and problem-solving efforts

Massachusetts Materials Technologies LLC, Cambridge, MA
Co-Founder, Research Engineer, Safety Officer — March 2015 – April 2017

- Determined proof-of-concept method for non-destructive evaluation of fracture toughness
- Developed and maintained on-site safety program, including Chemical Hygiene Plan
- Drafted portions of, created illustrations for, and coordinated submission of 4 US utility patent applications (1 grant), as well as several provisional applications

Materials and Engineering Group LLC, Cambridge, MA
Engineering Consultant — October 2013 – April 2017

- Consulted as expert witness support for litigation cases up to $1 billion in losses
- Developed and implemented evidence teardowns and inspections
- Drafted memos and reports for clients on analytical and experimental findings

Skills

Technical: SolidWorks, NX, Abaqus/CAE, machining
Programming: MATLAB, VBA; Fundamental: Arduino, C/C++, Python
Practical: Project management, system integration, technical writing