

School Address

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Brett Carbonneau

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Permanent Address

37 South Charlton Shore Rd.
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OBJECTIVE – Full time position in the field of Mechanical Engineering relating to Materials Science

EDUCATION –

Worcester Polytechnic Institute (WPI), Worcester, MA, May 2018

Bachelor of Science in Mechanical Engineering, Materials Science Minor, Business Management Minor, **GPA: 3.8/4.0**

SKILLS –

Software: SolidWorks, ANSYS, Instron, LabVIEW, Microsoft Word, Excel, Etc., AutoCAD, 5S

Machines: Scanning Electron Microscope (SEM/EDS), Instron, Polytec Scanning Vibrometer, 3D Printers, laser cutter

WORK EXPERIENCE –

Ceramic Fuel Cell (SOFC) Engineer Intern, Saint-Gobain R&D Center, Northborough, MA, May 2017 – May 2018

Developed and manufactured ceramic Solid Oxide Fuel Cells. Performed detailed ceramic processes (i.e. mixing, cutting, measuring, and sintering) in the green-forming production team. Analyzed, Quality Control, and tested new materials for scale-up projects that will reduce manufacturing costs and increase production. Co-authored Technical Memos, SOP Manuals, and project documents. Optimized and executed data collection methods for efficient improvements. Attended events and gave presentations related to material processing techniques and experiments. Asked by manager to work part time during senior year. Trained new intern on tasks that I had been performing.

Engineering Technician Intern, Primetals Technologies, Worcester, MA, May 2016 – August 2016

Collaborated in the Non-Ferrous Metal Rolling Mill department to complete a redesign project of an Intelligent Pinch Roll assembly using SolidWorks and AutoCAD. Created and revised other detail and assembly models and drawings.

CERTIFICATIONS –

Online Certificate for Engineering Simulations (ANSYS), Cornell University, November 2017

Certified SolidWorks Associate, WPI, May 2016

PROJECTS –

Major Qualifying Project (MQP): Bose Sponsored Speaker System Development, WPI, August 2017 – May 2018

Co-developed a thin speaker system to produce good sound steering, frequencies, and quality in a team of 17 WPI Seniors with **Bose** as a sponsor company. Used SolidWorks, ANSYS, 3d printers, and an Instron to improve and fabricate a patented double passive radiator speaker box design. Combined 3 transducer designs, housings, and sensors in a functioning prototype.

Graphene Synthesis Research Project, WPI, March – May 2018

Conducted research on eight innovative synthesis methods in the field of graphene and compared each method's potential for scaling-up to an industrial scale. Authored a research paper and presentation to present to a class of 20 colleagues.

Interactive Qualifying Project (IQP): Food Waste Recycling in Peri-Urban areas, WPI, January – May 2017

Collaborated with the MA State Senate Majority Leader to try to resolve a dispute between a composting farm and its neighbors involved in a lawsuit resulting from odors, trucking, and health effects. Researched and visited successful practices including anaerobic digesters, composting equipment, and communication. Created 2 educational videos, a 100 page report, and a website of innovative solutions for public use. This project was a **top-five finalist for the President's IQP Award**.

Nanomaterial Surface Coatings Research Project, WPI, January – March 2017

Conducted research on synthesis, imaging techniques (i.e. AFM), and integration of nanotechnology for coatings of medical implants in a team of four. Communicated to write a research paper and a poster to present to a class of 40 colleagues.

Eagle Scout Project (Troop 338), Oxford, MA, February – June 2013

Managed, organized, and led my troop of over 27 members in designing a storm water flow path and renovating part of its walking trail for Clara Diabetes Camp totaling 120 combined community service hours. This led to **Eagle Scout** rank.

ADDITIONAL EXPERIENCE –

Chemistry Stockroom & Lab Employee, WPI, September 2014 – May 2018

Carbonneau's Shoe Repair Associate, Worcester, MA, January 2009 – June 2017

ACTIVITIES –

Tau Beta Pi Engineering Honor Society, WPI, April 2017 – Present

Habitat for Humanity Restore Volunteer, Worcester, MA, March 2015 – Present

Soccer and Snow Skiing Clubs, WPI, August 2014 – May 2018