

# Chris Magoon

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portfolio: [www.chrismagoon.com](http://www.chrismagoon.com)

164 Maplewood Road, Corinth VT 05039

## Education

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- 2009 - 2014 **Thayer School of Engineering at Dartmouth College, Hanover NH**  
*Bachelor of Engineering, Concentration in Mechanical Engineering | 3.48 GPA*  
Coursework: Computer Aided Mechanical Engineering Design, Dynamics, Machine Engineering, Engineering Design Methodology, Materials Processing and Selection, Solid Mechanics, Materials Science, Sustainable Natural Resource Management, Systems, Statistics
- 2009 - 2013 **Dartmouth College, Hanover NH**  
*Bachelor of Arts in Engineering Sciences | 3.58 GPA*

## Academic Honors and Awards

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- Spring 2014 **Dartmouth Society of Engineers Prize**  
For outstanding performance of my design team on our Solar Ballast Mount project in Engineering Design Methodology
- Fall 2010 **Phillip R. Jackson Engineering Sciences Prize**  
For outstanding performance of my team on our automatic longboard brake in Introduction to Engineering
- 2010 - 2013 **Academic Citations:** Awarded by professors to indicate special effort or achievement  
Distributed Systems, Sculpture I, Drawing I, Printmaking II, Product Design\*, Introduction to Engineering\*  
*\* teaching assistant citations*

## Experience

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- July 2016 - August 2017 **Mechanical Engineer, Fikst Product Development, Woburn, MA**
  - Worked in several small project teams with clients to develop medical, biotech, and microfluidic products
  - Designed and fabricated a variety of parts and manufacturing tools for testing, process development, small scale production
  - Developed injection molded parts for a medical sample prep system through iterative prototyping, testing, client feedback
  - Designed and built an automated heat sealer to prepare uniform product samples at volumes needed for testing
  - Maintained two laser cutters with weekly cleaning, optics adjustment; trained new employees to ensure safe and efficient use
- Sept - Dec 2015 **Technical Instructor, Thayer School Machine Shop, Hanover, NH**
  - Instructed students in the operation of machine tools including CNC Mills and Lathes, laser cutters, band saw, drill press
  - Conducted weekly skills training sessions and acted as primary technical advisor to 8 student design teams in 2 classes
  - Worked with professors to develop new tutorials to teach SolidWorks and machining skills
  - Ensured safe and efficient operation of shop facilities
- July 2014 - July 2015 **Design Fellow, Thayer School of Engineering, Hanover, NH**
  - Advised student design project teams, providing assistance in fabrication, CAD, and general design advice
  - Worked with professors in 6 design classes throughout the year on student skills training and curriculum development
  - Developed and taught tutorials in Solidworks for students in Solid Mechanics, Product Design, and Intro to Engineering
  - Honed my fabrication and machining skills through creative independent projects in the machine shop
- Jan - Mar 2015 **TibFnder™ Lead Designer, Cofounder, Iometry INC, Thayer School of Engineering, Hanover, NH**
  - Worked with a team of students and faculty to develop a guide for the placement of an intra-osseous needle in the tibia
  - Fabricated dozens of looks-like and works-like prototypes for user testing and analysis
  - Rapidly iterated our designs through group brainstorming and critiques, discussions with medical experts, and user testing
  - Put our final design on a pathway to future manufacturing through initial refinement and optimization for injection molding
- July 2014, July 2015 **Project Director, Design It Build It Summer Camp, Thayer School of Engineering, Hanover, NH**
  - Worked with high school students for a 2 week engineering camp at Thayer School
  - Developed and ran a longboard building workshop for 12 students to design and build custom boards in 4 days
  - Ran SolidWorks tutorial sessions and assisted with camp activities
- 2011-2015 **Teaching Assistant, Computer Aided Mechanical Engineering Design, Product Design, Intro to Engineering, Thayer School of Engineering**
  - Developed and planned design projects, SolidWorks lessons, and quizzes
  - Assisted students in SolidWorks, HSM Works CAM, and advanced machining and fabrication skills
  - Supported students on design projects with design guidance, SolidWorks assistance, and machine training

## Skills

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### Applications

Certified SolidWorks Professional including competency in FEA analysis, mold tools, surfacing, weldments, rendering, and SolidWorks Composer  
HSM Works, MasterCAM, Haas and ProtoTRAK CNC interface, SketchUp, CorelDRAW, Microsoft Office Suite, Adobe Photoshop

### Fabrication

CNC and manual Mill and Lathe, Injection Mold part design, Composite Layup, Laser Cutting, 3D printing, Vacuum Forming, Sand Casting, Plasma Cutting, Wood Lamination, MIG and Oxy-Acetylene welding, Vacuum Bag Lamination, Concrete Casting, wood lathe, advanced woodworking

## Interests

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Nordic and Backcountry skiing, Freeride and Downhill Longboarding, Longboard design and fabrication, Videography and Photography, Improvisational Piano, Canoe Camping, Tree Climbing