Peter Ascoli E.I.T.

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2015-2017 Massachusetts Institute of Technology, Cambridge, MA, USA o Master of Science, Mechanical Engineering, Design and Manufacturing, GPA 3.9/4.0, Graduate Rese 2011-2015 The Cooper Union for the Advancement of Science and Art, New York, NY, USA o Bachelor of Engineering, Mechanical Engineering, GPA: 3.9/4.0, Full Tuition Scholarship Experience Aug. 2017 Present Organ Structures Engineer at Space Exploration Technologies (SpaceX), Hawthorne, CA, USA Dragon Structures Engineering o "Cradle to Grave" responsibility for multiple primary and secondary structures delivered to Dragon o Design: Mass and stiffness driven composite and metallic structures. Drawings per ASME-Y-14.5-2 o Analysis: Developed loading methodolgy, built FEMs (linear and non-linear) to iterate designs evalue or Test: Validated hardware with setup design, ran static load cases, correlated models, and wrote cer o Build: Rapidly solved production-halting Dragon 1 and 2 build issues through repair suggestions, Sept. 2015 Graduate Research Assistant at MIT, Cambridge, MA, USA Laboratory for Manufacturing and Productivity olnvestigated sources of variation in roll-to-roll microcontact printing quality due to seamless tool Simulation: Modeled thick film lithographic exposure of tool molds to develop the manufacturing o Design/Build: Programmed a raster-scan exposure protocol to create photoresist molds, on which cast PDMs, forming seamless cylindrical stamps with desired micron-scale features. Built two inspect and measure photoresist mold geometry, and to measure feature deformation under prin o Test: Quantified the variation in feature dimensions in each step from the analytical shape throug Mentor at MIT MakerWorkshop, Cambridge, MA, USA Volunteer Shop Technician, Supervisor, and Mill Team Leader at MIT's first student run machine shop o Design/Build: Provided project guidance to students, faculty, and staff, while ensuring safety of st o Management: Certified mill users through weekly trainings, and organized and taught a week-lon Mecha	
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To Learn: CNC BB8 • Designed a hand-sized, passive, SDOF BB8 (Star Wars droid) using a copper ballasted pendulum, and a magnetically coupled head. CNC-machined all metallic components to improve CNC and CA	
Skills Skills	
Design: 3D modeling, finite element analysis, tolerance stackups, error budgets, machine design, and 2D dr. Making: Sketching, manual and CNC 3-axis mill, manual lathe, water jet, laser cutting, 3D printing, most	st hand and
benchtop tools, composite layups, and basic electronics (ie. soldering, waveform generators & oscil Software: SolidWorks, Autodesk Inventor, AutoCAD, PTC Creo, Siemens NX & Team Center, ANSYS, Abaqus, FE Nastran, HSMWorks, MATLAB, LaTeX, LabVIEW, Microsoft Office, and Adobe Photoshop, Adobe Illust	FEMAP with