

Benjamin Freeman

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Experience

3D Printing Applications Engineer

Jun 2018-Present

3D Print Bureau of Texas (Houston, TX)

- Utilized SOLIDWORKS and multiple 3D printing software packages to prepare files for manufacturing and optimize print settings
- Managed multiple projects simultaneously to ensure timely delivery and meet or exceed customer expectations
- Oversaw successful completion of more than 400 unique projects valued at over \$750,000 in revenue
- Created and managed printer maintenance schedule resulting in a reduction of build failures by over 50%
- Improved on-time completion rate for client projects to more than 90% by implementing Kanban-style workflow monitoring
- Led daily production team meetings to review critical tasks and project timelines
- Trained technicians and junior personnel on a variety of topics including 3D printer operation and maintenance, ERP system, and 3D printing software
- Designed complex 3D models in SOLIDWORKS based on sketches or 2D drawings
- Initiated and directed efforts for process improvement, documentation of printed parts, and materials inventory
- Worked directly with customers to understand project requirements, select appropriate materials and technologies, generate quotes, and provide progress updates until project completion
- Researched new materials, 3D printing technologies, and software to expand company capabilities
- Reviewed and analyzed sales performance of printing technologies, ad campaign efficacy, and client conversion rate
- Collaborated with ERP software administrators to continuously add features and optimize workflow efficiency
- Updated CRM database to assign priority levels based on total revenue, track time between projects, and set follow-up reminders

3D Printing Technician

Mar 2018-Jun 2018

3D Print Bureau of Texas (Houston, TX)

- Maintained, operated, and calibrated eleven 3D printers across four 3d printing technologies
- Tracked inventory of 3D printing materials as well as material usage per job
- Documented, post-processed, and shipped printed parts

Research Assistant

Aug 2015-Jan 2016

University of Texas at Austin (Austin, TX)

- Supported research lab studying Laser Ablation of Microparticle Aerosols
- Created SOP's, performed equipment maintenance, and operated laser and other equipment

Propulsion Intern

May 2014-Aug 2014

SpaceX (Hawthorne, CA)

- Researched and fabricated ceramic matrix composites for use as engine nozzle liners
- Modeled and 3D printed tooling prototypes for filament winding operation to improve manufacturability and reproducibility of composite reinforcement architecture
- Developed a method and database to find carbon fiber tensile strengths

Research Assistant

Dec 2012-Sep 2014

E. V. Barrera Group, Rice University (Houston, TX)

- Designed, fabricated, and analyzed composite materials composed primarily of carbon nanotubes, nanocrystalline aluminum alloys, and polymeric materials
- Operated two-stage light gas gun to test hypervelocity impact response of composite shielding materials for potential use in spacecraft

Education

Rice University (Houston, TX)

Aug 2011-May 2015

- B.S. in Materials Science and NanoEngineering (GPA: 3.65/4.00)
- Rice Materials Science and Engineering Society Founder and President (Oct 2013-Apr 2015)
- Materials Science and NanoEngineering Department Community and Service Award (2014)

Skills

Software

SOLIDWORKS, GrabCAD Print, HP SmartStream, Stratasys Insight/Control Center, 3D Sprint, Siemens NX, Autodesk Inventor, QuickBooks, Microsoft Office

3D Printing Technologies

Multi Jet Fusion (MJF), FDM/FFF, PolyJet, SLA/Stereolithography

Professional Skills

Design for Additive Manufacturing (DfAM), Project Management, Process Optimization, Sales Support, Assembly Management, Website Content Creation, Spanish (Elementary Proficiency)