# Benjamin Freeman

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## Experience

### Additive Manufacturing Process Engineer III — Sep 2021-Present

**Jabil Healthcare (Albuquerque, NM)**

- Develop and improve processes for producing medical implants using metal additive manufacturing
- Work cross-functionally with operations, quality, and maintenance to ensure scrap and downtime are minimized
- Lead troubleshooting efforts on fleet of 10 Laser Powder Bed Fusion (L-PBF) 3D printers and sieving stations
- Generate build files for 3D printing by creating support structures, slicing part files, and adjusting laser parameters
- Manage and update CAD files for fixtures/tooling, coordinate with machinists to perform repairs and manufacture new components
- Write work instructions/operating procedures, train staff to procedures, and manage relevant documentation using PLM system
- Perform investigations for equipment and process failures, document non-conformances, and implement corrective/preventive actions
- Recognized by leadership team for quality and thoroughness of NC and CAPA investigations/documentation
- Participate in audits as a 3D printing SME by responding to auditor questions and providing documents/records as requested
- Source and coordinate installation of capital equipment based on manufacturing process and facility needs
- Collaborate with external vendors to provide outsourced manufacturing services
- Operate metrology equipment such as laser beam profiler and surface profilometers to analyze performance of equipment
- Evaluate microstructure of 3D printed metal parts by preparing metallographic samples and analyzing with optical microscope to support engineering investigations

### 3D Printing Applications Engineer — Jun 2018-Aug 2021

**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)**

## Education

**Rice University (**Houston, TX) — **Aug 2011-May 2015**

- B.S. in Materials Science and NanoEngineering
- Rice Materials Science and Engineering Society Founder and President (Oct 2013-Apr 2015)
- Undergraduate Research Assistant, E.V. Barrera Group (Dec 2012-Sep 2014)
  - Fabrication and testing of composites for hypervelocity impact shielding

## Skills and Certifications

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| **Certifications** | Certified SOLIDWORKS Professional (CSWP) – Mechanical Design (Jul 2021) |
| **Software** | SOLIDWORKS, 3DXpert, Windchill (PLM) GrabCAD Print, HP SmartStream, Stratasys Insight/Control Center, 3D Sprint, Siemens NX, QuickBooks, Microsoft Office |
| **3D Printing Technologies** | Laser Powder Bed Fusion (L-PBF), Multi Jet Fusion (MJF), FDM/FFF, PolyJet, SLA/Stereolithography |
| **Professional Skills** | Design for Additive Manufacturing (DfAM), Medical Device Manufacturing (Implants), Equipment Troubleshooting, Failure Investigation, Continuous Improvement, Project Management, Process Optimization, Sales Support, Assembly Management |