

# Joshua Bass

Clemson, SC-Mamaroneck, NY | (914)844-3953 | jlbass4642@outlook.com | joshbass.net | www.linkedin.com/in/josh--bass

## Profile

Highly skilled CAD Designer with a proven track record in 3D printing, CAD software, prototype/end-use development, and Design for Manufacturing (DFM).

## Experience

### TEACHERS ASSISTANT | CLEMSON UNIVERSITY | CLEMSON, SC | JAN 2024-PRESENT

- TA for a 3D printing creative inquiry course at Clemson as an undergraduate student
- Assisted students creating CAD models, 3D printing, as well as give lectures on different 3D printing technologies

### APPLICATION ENGINEERING INTERN | 3D SYSTEMS | DENVER, CO | JUNE 2023-AUGUST 2023

- Specialized in metal laser powder bed fusion (LPBF) support structures within Application Innovation Group (AIG)
- Designed power support templates (cobalt chrome, inconel, titanium) using 3DXpert for various implants and devices
- Potential annual savings of around \$85,000 with my updated support structures and manufacturing process
- Conducted 3D scanning and analysis with Keyence VL-700 and FaroArm optimized through DOE
- Designed aerospace coupons to test new support templates using SolidWorks and 3DXpert

### 3D MODEL INTERN | FORMLABS | BOSTON, MA | AUGUST 2022-DECEMBER 2022

- Supported the generation, curation and validation of 3D models that showcase the value of Formlabs materials and hardware that can be used for a variety of marketing purposes
- Designed several parts that were presented at the largest additive manufacturing trade shows such as Formnext
- Aided in the benchmarking of customer prints as well as trade show hero parts and medical devices

### TRAINING INTERN | 3D SYSTEMS | ROCK HILL, SC | MAY 2022-AUGUST 2022

- Developed an innovative AR training platform for Field Engineers, optimizing onboarding and maintenance for ProJet 6000/7000 SLA 3D Printers
- Streamlined maintenance processes and facilitated hands-on learning with industrial-grade 3D printers

## Education

### B.S. GRAPHIC COMM, MATERIAL SCIENCE AND ENGINEERING MINOR|CLEMSON UNIVERSITY | DEC 2024

## Skills

CAD Software (SolidWorks, Fusion 360, nTopology, 3DXpert, Catia, AutoCAD, Onshape)

Mechanical Design Certification (SolidWorks) CAE/FEA/DFM

3D Printing (LPBF, DMP, FDM, SLA, SLS, CJP, MJP, DLP)

3D Scanning (Keyence, FaroArm|Software:DesignX, ControlX)

Sustainability Human Centered Design

Statistics software (Minitab, JMP)

UI/UX Design (Figma, Brackets)

Casting/molding (die, sand, investment, injection)

Microsoft/Google Suite

Project management

Adobe Suite (Illustrator, Photoshop, InDesign)

## Extra-Curriculars

### HEAD OF MANUFACTURING FOR DBF TEAM | CLEMSON, SC | SEPTEMBER 2023-PRESENT

- Design Build Fly (DBF) is an annual aviation competition run by the AIAA
- Managed a team of mechanical engineers in manufacturing the aircraft, where we work on tolerancing, laser cutting and assembling the aircraft

### DESIGN-A-THON (TOP IN TRACK, 2ND PLACE) | CLEMSON, SC | MARCH 2021-MARCH 2022

- (2022) Designed a product that can detect all ingredients in food with a sensor to prevent allergic reactions
- (2021) Designed and prototyped an autonomous irrigation system that produces energy to power buildings. Pitched in front of a panel of judges where we were asked a series of questions