

# TONY CARPENETTI

Linkedin.com/in/tonycarpenetti | tonycarpenetti.com | (740) 630-7768 | carpenetti2013@gmail.com

## DESIGN ENGINEER

A creative Design Engineer with 7 years of diverse experience. Developed vehicle integrations for NASA's Space Launch System (SLS) Artemis Program on the ESSCA Contract. Possesses strong personal skills with experience working in highly technical and multidisciplinary teams. Pursues continuous learning, relishes troubleshooting, experiments with home labs, websites, and server development.

Core competencies include Product Design, Project Management, Verbal and Written Communication, Documentation and Presentation, Code Writing / Interpretation / Debugging, Data Analysis, Website Development. Graphic Design, CAD Modeling and Simulation, FEA, Technical Writing, Critical Thinking, Continuous Improvement, and Public Speaking, Geometric Dimensioning and Tolerancing (GD&T)

## CAREER HIGHLIGHTS

- Received JSEG Outstanding Task Award for successful delivery of NASA's Space Launch System (SLS) Block 1B Vehicle Integration MICD
- Selected for competitive JSEG Technology Excellence Development Program and nominated for outstanding young professional award
- Reduced project costs by \$20,000 by designing a retrofit solution for an existing motor part, avoiding the need for new tooling

## PROFESSIONAL EXPERIENCE

**BEVILACQUA RESEARCH CORPORATION (BRC)** Huntsville, AL (40hrs/week) **FEB. 2021 – PRESENT**  
**Mechanical Design Engineer [NASA's ESSCA CONTRACT with AMENTUM (formerly Jacobs Space Exploration Group (JSEG))]**

- Delivered Mechanical Interface Control Drawings (MICDs), Interface Detail Products (IDPs), and Procurement Control Drawings (PCDs)
- Developed software solutions which reduced the data validation and acceptance timeframe by 50% and eliminated human error inputs
- Reviewed product deliveries for ground- and flight-side components supporting the NASA Block 1B Launch Vehicle and EUS Umbilicals
- Reconfigured customer Engineering Parts List (EPL), streamlining formatting to increase visibility, accuracy, and usability

**REGAL REXNORD** Tipp City, OH (40hrs/week) **NOV. 2018 – FEB. 2021**  
**Mechanical Design Engineer**

- Drove innovation with a new hall sensor mounting solution to overcome limited spacing, which initiated technology patent research
- Managed the 6206 bearing project through design conception, CAD modeling and simulation, benchmarking, comparison testing, supplier quoting, and manufacturing- fulfilling the customer's need for a sturdier motor within the same frame size and price bracket
- Utilized VAVE workshops and projects, 80/20 methodology, and lean engineering principles to support \$37.61M in cost-out savings

**HITACHI ASTEMO** Mt. Sterling, OH (40hrs/week) **SEPT. 2017 – NOV. 2018**  
**Project Engineer**

- Implemented a robotic arm into the manufacturing line which reduced assembly time and scrap count, resulting in fewer trouble reports and less downtime. Performed programming and troubleshooting on the robot and associated HMI to mesh with production
- Led lifecycle management and new product releases for a tier-1 OEM automotive manufacturing supplier, ensuring quality and delivery
- Designed process improvement solutions for the associates and the company, such as creating assembly support fixtures, repairing and installing production line machines, and streamlining production part flow paths for increased ergonomics and cost-efficiency

## SKILLS AND TOOLS

**PROGRAMMING & WEBSITE DEVELOPMENT SOFTWARE:** Git, GitHub, HTML, CSS, JavaScript, Typescript, Python, Visual Basic, SQL, C++, C  
**CAD & SIMULATION TOOLS:** CREO, SolidWorks 3D, ANSYS FEA, AutoCAD 2D, LabVIEW, MATLAB & Simulink, Windchill, Mathcad  
**CREATIVE:** Affinity (Designer, Photo, Publisher), Digital Audio Workstations (Ableton Live, FL Studio), Adobe XD, Canva, 3D Printing  
**MISCELLANEOUS:** Microsoft Office Suite (Word, Excel, PowerPoint, Project, Outlook, OneNote, Teams), Scrum, Agile, Kanban

## EDUCATION

**WRIGHT STATE UNIVERSITY** Dayton, OH **AUG. 2013 – MAY 2017**  
B.S. Mechanical Engineering | *Honors Diploma, GPA: 3.53*

## COMMUNITY LEADERSHIP

**STEM Advocate** – Delivered Mechanical Engineering presentation to 100s of students at Alma Mater HS Career Expo, fostering STEM interest. JSEG Careers Network (JCN), JSEG Mentor Peers Program (MPP), Marshall Early Career Organization (MECO), EV Connects Member.

**Local Church Leader** – Mentoring young adults, preparing weekly study content, developing digital content, playing on the worship team, recording voice-overs, acting in creative videos, church building renovation activities, tornado cleanup efforts, childcare services.

**Technology Expert / Googler** – The go-to person for fixing various technical difficulties for friends and family. Troubleshooting internet connectivity, computer hardware and software issues, cell phones, household appliances, and DIY home improvement and repair. Created documents for reward programs, wedding invitations, vacation plans, PTO use, finance budgets, VPN tracking, and timesheets.