

Brandon M. Davis  
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### **SPECIAL SKILLS:**

- Ability to lead and participate in advanced engineering development & design projects. Experience with 3D printing and prototyping.
- Experience with Keyence vision systems and can use and read various specialized measurement tools such as bore gauges, micrometers, and calipers.
- Experience with FARO 8 axis arms for laser scanning, as well as Creaform handheld advanced laser scanning equipment and all related software for reverse engineering.
- Over ten years' experience with the use of AutoCAD in multiple computer aided design projects. Able to review, modify and conceptually design in CATIA V5, SolidWorks, Pro E, NX and Inventor.
- Experience with MATLAB/Simulink, AVL, GT Suite, and ANSYS simulation software.
- Analyze and interpret blueprints and GD&T. Manage and operate multiple classifications of CNC lathes, drill presses, and CNC mills. Familiar with all related processes and languages.
- Experience with ISO 9000 & 9001 quality standards.
- Technically adept in troubleshooting PLC's, especially Omron and Allen Bradley.
- Have Programed Fanuc Robotics such as the LR Mate series, using the Karel language.
- Experience with installing and maintaining robotic part handling systems and CNC peripherals for automation.
- Proficient with product life cycle, material, and project management systems such as SAP, MRP's, ERP's, MS Projects, Jira, AWS, and other Oracle based platforms.

### **EMPLOYMENT HISTORY:**

#### **Compass Technologies LLC- Alpharetta, GA, USA**

**(6/21-Current)**

##### **Senior Engineering Manager (Contract)**

- Oversee any Airforce and Military aerospace DoD contract projects over 1 million dollars.
- Manage P&L and use various project management tools to maintain projects time and budget.
- Assist with the design and manufacture of bespoke radio frequency material analysis systems.
- Support large scale implementation of hardened cloud solutions using delivery models such as SaaS.
- Aid in testing, research, and development of custom radio frequency analysis software products.

#### **PAI Industries – Suwanee, GA, USA**

**(3/17 – 9/20)**

##### **Product Design Engineer (Engines) (4yrs)**

- Research, develop, design & reverse engineer internal and peripheral diesel engine components for the high-performance product lines. Utilize computer aided engineering such as FEA and 3D Point Cloud Laser Scanning for guidance in the design process.
- Perform engine dynamometer testing and data acquisition analysis on prototype engines developed with the use of proprietary and aftermarket components.
- Inspect, measure, and verify accuracy of products developed internally and or products where the manufacturing processes have been outsourced.
- Create and manage manufacturing specifications and blueprints for major development projects.

**SigmaTEK Systems, LLC- Cincinnati, OH, USA**

**Engineering Project Manager (3yrs)**

**(3/14 to 3/17)**

- Manage, design, and implement custom software automation solutions per customer specification.
- Utilize state-of-the-art software to interface with customer's networks, CNC machines, peripheral systems like automatic part and material handlers and internal business systems.
- Provide advanced support and training on these custom solutions and developing custom programs using Delphi, C#, and SQL to enhance data communication and automation.
- Maintain and create P&L analysis for all customers over a quarter million dollars, utilize MS Projects and Jira to ensure projects remain on time and on budget.

**Application Engineering Supervisor**

- Managed a team of 12 application engineers and was responsible for training, scheduling, and monitoring the performance of the entire team.
- Wrote technical documentation and dispersed projects throughout the department, also coordinated communication between the Vice President of Engineering, Director of Operations, and the engineering team.
- Supported the SigmaTUBE and SigmaBEND products, which are 3D CAD/CAM platforms for press brake and tube cutting machines.
- Used a variety of 3D and 2D CAD packages as well as different types of programming languages.
- Worked with various types of fabrication machines such as lasers, plasmas, punch machines and routers.
- Programmed special tooling for advanced and complex geometrical part design.

**Surface Dynamics LLC- Cincinnati, OH, USA**

**(6/13 – 3/14)**

**Manufacturing Design Engineer (Contract)**

- Researched, tested, designed, and developed processes and tooling for the coating of Titanium and PEEK medical implants.
- Supervised production floor and used Kaizen and other Lean Manufacturing techniques such as Six Sigma and root cause analysis to continuously improve production.
- Improved method sheets and perform product analysis for quality improvement and cost reduction.

**Makino- Mason, OH, USA**

**(10/12- 6/13)**

**Field Service Engineer (Contract)**

- Main objectives were to troubleshoot, modify, repair, and install advanced Japanese technologies developed for CNC solutions upon customer demand.
- Comprehend and work with the design of complex electrical, mechanical, pneumatic, and hydraulic systems for high-speed CNC equipment and its peripherals like low profile modular conveyors and automated part / material handlers and production cells.
- Trained and interacted with customers on basic operations of Makino CNC controls.

**KMS Engine Development- Covington, GA, USA**

**(1/11-9/12)**

**Machining Technician (2yrs)**

- Operated, tested, and maintained vertical mills and horizontal CNC lathes to produce high-performance race engine titanium valve train components.
- Dual responsibility as lead quality inspector, and utilized quality control methods, procedures, and technology such as coordinate measuring machines (CMM) to ensure product was within specification.
- Responsible for full engine disassembly/assembly, and race preparation such as head porting, polishing, honing, and machining.
- The types of engines that were modified and installed with our manufactured valve train components were SCCA spec engines for Porsche, Ferrari, Honda, Audi, Nissan, and Toyota.

## EDUCATION:

### **Oxford Brooks University- Oxford, United Kingdom**

- Master of Science: Mechanical Engineering (**Race Engine Systems Design**) (September 2021)

### **North Carolina A&T State University- Greensboro, NC, USA**

- Bachelor of Science: Manufacturing Engineering (**Motorsports Technology**) May 2010

## APPRENTICESHIPS:

### **Honda Manufacturing of Alabama (2008)**

- Mechanical Engineer (Engines)

### **Becton Dickenson & Co (2007)**

- Machine Technician (Plastic Injection Molding)

### **U.S Department of Veterans Affairs (2006)**

- Office of the Under Secretary for health

## CERTIFICATIONS & TRAINING

### **Mitutoyo Corporation**

- Coordinate Measuring Machine (CMM) Operation

### **Borg Warner Turbochargers**

- Turbocharger Failure Analysis.

### **The Fabricators & Manufacturers Association**

- Precision Press Brake Technology- 2015

### **Makino- (Certifications) Mason, OH**

- Crane operation-2013
- Fork Truck operation-2013

### **Makino- (Training):**

- Completed Training in Machine Tool Technologies; High Performance Machining; Machine Maintenance Training; Fanuc Control processes; CNC Programming; Electromechanical Applications.

### **Lanier Technical College- Gainesville, GA, USA**

- Race Engine Building Certification- Dec 2010

### **Élan Technologies:**

- Completed accredited courses and training for carbon fiber layup and composite work.

### **Honda Manufacturing Company:**

- Completed training in grinding technology, fall protection, fire watch, robot safety, lockout tag out, and confined Space. Trained in CATIA V5.

### **Cisco:**

- Training in networking concepts through Leesville Road High school.

## AWARDS:

### **North Carolina A&T State University- 2005**

- Awarded for having a GPA between 3.0 and 3.5

### **Future Business Leaders of America Regional Conference- 2003**

- Awarded in top ten for Networking Concepts

## VOLUNTEERING:

- Formula Student- Oxford Brookes Racing – **Systems Design Engineer:** Formula Student- 2020
- Exum Motorsports **Data Acquisition Specialist:** Nitro Spring Nationals -2008
- Honda Manufacturing of Alabama **One Lap Racing Program-** 2008
- Society of **Manufacturing Engineers** - 2008
- Future Business Leaders of America- 2003
- Community service volunteer for Inner Faith Food Shuttle -2000