

Bradley L. Tudor

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QUALIFICATIONS SUMMARY:

Full-Stack Developer:

Successfully built out 3 versions of the recruiting platform as a fullstack developer. Participating in every stage of development from product planning to, data modeling, implementation, testing and review. Designed and built a recommendation system using Neo4j (graph database) and a database synchronization layer. Routinely handled full ownership of feature implementation. Built out tools for team metrics tracking. Mentored one engineer.

Mechanical Engineer:

10 years of industry experience successfully leading projects. Specifically in cradle to grave new product development, continuous product improvement, process automation, manufacturing \ support and warranty analysis. Experienced in new employee training \ mentorship. Extremely proficient in 3d modeling, with good knowledge of FEA, CFD simulation and computer programming. Ended career serving as Director of Engineering for Stewart Filmscreen.

SOFTWARE DEVELOPMENT

HIGHLIGHTED SKILLS

Node.js	MongoDB	Neo4J	GraphQL	Apollo	REST API	Cypress.js
Next.js	React	Storybook	Sentry.js	Axios	HTTP	
Jest	Enzyme	JWT	PostMan	Styled-Components		

EXPERIENCE

Full-Stack Developer

Dec. 2019 – Present

ClusterInc (Fully Remote)

Project: Core Product (Recruiting platform)

Description: Engineering recruiting platform specifically focused on the Mechanical / Electrical Engineering vertical.

Responsibilities: Served as primary engineer and engineering representative in every stage of product development from planning to testing. Routinely researched, planned and implemented full features and service integrations. Built analytics tools for monitoring developer contributions. Hired and mentored one engineer.

Achievements:

- Contributed 68% of all edits to version 2 as a Fullstack developer.
- Built database synchronization layer between MongoDB and Neo4j.
- Built a recommendation system in a graph database from scratch.

Project: College-Collective (Degree search for community colleges)

Description: Search platform for finding affordable degrees from online community colleges.

Responsibilities: Full stack development of API and frontend features of the CRM portion of the app. Joint development of user facing frontend development and api development of search feature.

Achievements:

- Built out over 95% of all code for CRM used to manage site data and provide analytics.
- Built aggregation used to handle search and filtering of all degrees.
- Helped code several frontend pages.

Description: Conducted technical interviews for software engineers. Evaluations were done through verbal questioning and live evaluation of paired programming sessions with coding challenges

Personal Projects

- Title: GitData
 - Description: Node.js version of GitHub insights
 - Involvement: 100% of code base.
 - Tech Stack: Node.js
 - Git: <https://github.com/Brad-Tudor-Eng/git-data>
- Title: Trello-Stats
 - Description: Node.js version of GitHub insights for Trello
 - Involvement: 100% of code base.
 - Tech Stack: Node.js
 - Git: <https://github.com/Brad-Tudor-Eng/Trello-Stats>
- Title: GrowCtrl
 - Description: IOT Automated Greenhouse control and data logger.
 - Involvement: 100% of code base and physical device.
 - Tech Stack: Node, Express, GraphQL Yoga, React, MongoDB, Audrino
 - Git: <https://github.com/Brad-Tudor-Eng/GrowControl>
- Title: WingMan
 - Description: In-flight navigational aid for wingsuit pilots Garmin Fenix 3
 - Involvement: 100% of code base.
 - Tech Stack: C-Monkey
 - Git: <https://github.com/Brad-Tudor-Eng/WingMan.git>

MECHANICAL ENGINEERING

HIGHLIGHTED SKILLS

Project management	New product development	Process Improvement	Training and Leadership
Solidworks	VBA Programming	Rapid Prototyping	Plastics Design and Processing
FEA Analysis	Metrology	CFD Simulation	ASME Y14.5-2009 GD&T

EXPERIENCE

Mechanical Engineer

May. 2017 – Present

Stewart Filmscreen (Torrence, CA)

Responsibilities: Served as Director of Engineering for the last two weeks. Set Engineering department standards. New Product Development (Consumer Goods). Redesign existing products reducing manufacturing time and cost. Automated Engineering drawing process. Developed costing for all products. Improved manufacturing process efficiency. Advised senior management on corporate improvement projects.

Achievements:

- Designed and developed an award winning product in less than 3 months.
- Automated process to convert over 5000 CAD files from Inventor 2013 to Solidworks 2017 in less than 2 weeks.
- Reduced Engineering labor through the automation of the drawing process and BOM generation saving over \$60k.
- Provided accurate cost for current products through development of automated costing templates.
- Spearheaded cross functional initiative to get quick-ship program back on track
- Reduced inventory and condensed product line by developing one product to replace 5.

Product Development Engineer

Sept 2012 – Apr 2017

PAI Industries (Atlanta, GA)

Responsibilities: New product design and development (Cast metal, machined, plastic injection molded and composite parts). Foreign and domestic supplier acquisition, and management. Design of new equipment and testing procedures to reduce warranty cost by ensuring product compliance. Research and acquire new capital resources to expand manufacturing capabilities and lower production cost. Design validation through 3D modeling, FEA and CFD simulation. Prototype construction and 3d printing. Engineering data management. Physical product testing. PPAP / FEMA documentation and testing. Developed creative solutions for allowing sales staff to convey technical information simply and cost effectively. Advise senior management on nonconforming products. Audit internal ISO processes. Engineering presentations for improving customer relations. Training and mentorship of engineering staff.

Achievements:

- Decreased engineering development time up to 75% through implementation of 3d Laser scanning / employee training.
- Reduced product assembly time by up to 83% through new fixture development.
- Developed, sourced and launched extremely successful high performance product line.
- Cut production cost of HP Pins by 50% through purchase of new equipment with 4 month ROI.
- Created a new system to organize the engineering data, reducing redundant work, lost / duplicate files, and confusion.

S-Body/Product Engineer

Dec. 2010 – Sept 2012

Supreme Corporation (Goshen, IN)

Responsibilities: Set base standards for 70% of the Supreme Corporations' truck divisions' product line. Designed and implemented improvements for cost reduction, ease of manufacturing and structural integrity. Provided technical support for sales and manufacturing at 5 locations nationwide.

Achievements:

- Strengthened key support structure by 85% while using 35% less part.
- Diminished total inventory by 45% through development of common parts across product lines.
- Employed improvements in product design resulting in a 20% reduction in fasteners and automation of assembly line.
- Reduced corporate losses by leading engineering changes to correct warranty and manufacturing.
- Boosted sales through technical support and production of custom designed units on a tight schedule.
- Increased engineering output and corporate profits through training and supervision of new employees.

Engineering Manager

Feb. 2009 – Dec 2010

Marson International/Quality Fuel Solutions/Pit Stop Products (Elkhart, IN)

Responsibilities: Supported manufacturing through the design, sourcing, assembly and inspection of welding fixtures. Developed coordinates for CNC tubing process. Worked with Senior Management to develop new products (Automotive and Consumer Goods). Used 3d CAD to develop engineering documentation. Trained and managed 1 employee.

Achievements:

- Improved weld fixture accuracy and inspection procedures through enhanced use of FARO technology.
- Cut weld fixture production cost by reducing assembly time through innovative design.
- Successfully designed, built fixtures for and launched new deck railing system for recreational vehicles.

Automotive Engineering Internship (Paid)

Dec. 2006 – July 2008

Summit Polymers (Portage, MI)

Responsibilities: Worked with project engineers to ensure successful on time development of plastic injection molded and composite products.

Achievements:

- Used root cause analysis to effectively solve warranty issues for major automotive companies.
- Reduced design cost by hand building functional prototypes to expedite testing of design changes.
- Successfully met tight prototype delivery deadlines by training and managing teams of up to 8 people.
- Cut production cost through implementation of new corporate design standards.

EDUCATION

Bachelors of Science in Engineering, December, 2008

Western Michigan University, Kalamazoo, MI

Associate of Applied Science, May 2006

Southwestern Michigan College, Dowagiac, MI

Solidworks Professional Training in CFD / FEA / Sheet Metal / Weldments

Geomagic Design X Professional Training

Faro Edge Cam 10 Measure 2 Professional Training

PERSONAL ACHIEVEMENTS

Graduated from Western Michigan University with honors and highest GPA in major.

Certified Solidworks Professional

NAUI Dive Master Certification

USPA IAD Instructor Certification