Bradley L. Tudor

63333 Storeyhill St. Vandalia Mi, 49095 - Phone: 574-220-7629 - Email: B6tudor@gmail.com

QUALIFICATIONS SUMMARY:

With 13 years of diverse engineering experience, I possess a unique combination of technical expertise and leadership capabilities. I have successfully designed and built complex systems, mentored technical teams, and driven continuous product improvement while staying up-to-date with the latest technological advancements. My proficiency in process automation, manufacturing, and warranty analysis highlights my ability to manage complex projects and ensure efficient workflows. As a Director of Engineering, I have honed my leadership skills, mentored new employees, and created a positive work environment. With experience in a startup environment, I have demonstrated versatility, adaptability, and innovation in dynamic settings.

SOFTWARE DEVELOPMENT

HIGHLIGHTED SKILLS

Languages: Typescript - Javascript - Python - C++ (Arduino) - C-monkey (Garmin) - Swift - GraphQL
Frontend: React - Next.js - React-Native - SwiftUI - Svelte - Styled-Components - SCSS - CSS
Backend: Machine Learning - Node - Apollo - Axios - HTTP - JWT - Express - Agenda
Database: MongoDB / Mongoose - Neo4j - Cypher
Testing: Jest - Enzyme - Cypress - Puppeteer - Postman - Unit testing - End to End testing
Dev-ops: Github - Docker - Rome - Turbo - Vercel - AWS - Google Cloud (GPC) - Microservice design - CI/CD - SWC
Documentation / Planning: Basecamp - Trello - Notion - Storybook

EXPERIENCE

Software Engineer Dec. 2019 – Present
Cluster (Fully Remote)

Project: **Core Product (Recruiting platform)**

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

Responsibilities: Guided technical development of the SAAS product, handling front-end, back-end, and dev-ops requests. Served as Software Architect designing and implementing critical systems. Designed and built neural network, graph based recommendation system for pairing users to jobs. Authored 50% of codebase as a full-stack developer. Designed connections to third-party integrations.

Achievements:

- Designed and built MLP neural network, graph inspired recommendation system on top of MongoDB.
- Implemented a scalable micro-service architecture that dramatically improved system performance.
- Developed a custom real-time database synchronization layer.
- Created password-less authentication flows for both email and text base login.
- Co-authored react component library, making frontend feature development fast and easy.
- Authored initial mono-repo setup greatly reducing build times, and improving the developer experience.

Project: **College-Collective & Cluster Universities (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. Development of API search algorithm. Joint development of user facing frontend.

Achievements:

- Built out over 95% of all code for admin site used to manage site data and provide analytics.
- Built aggregation used to handle search and filtering of all degrees.
- Created several frontend pages using custom built Next.js Component Library

Expert Interviewer Sept. 2019 – Sept. 2020
Karat (Fully Remote)

Description: Lead technical remote interviews for various software companies

Responsibilities: Lead technical interviews serving as a subject matter expert in several programming languages. Assessed code quality in live paired programming sessions. Managed schedule for conducting remote interviews.

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

Director of Engineering May. 2017 – Aug. 2019
Stewart Filmscreen (Torrence, CA)

Responsibilities: Ended as Director of Engineering. 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. Mentored Associate Engineers.

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% though 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% though 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 thought 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 thought 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 though enhanced use of FARO technology.
- Cut weld fixture production cost by reducing assembly time though 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 though 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

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