VIJAY MICHAEL, M.S
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Core Competencies:

- Product Development
- Technical Program Management
- Automotive Product Strategy & Roadmap
- Stakeholder Management & Client Engagement
- SAAS & B2B – SAP PDP/PLM, Enterproj – Product Management
- Cross-Functional Leadership
- Requirements Gathering & Change Documentation
- Risk Identification & Mitigation
- Agile/Waterfall/Gate/Milestone Methodologies
- Federal regulations FMVSS,IHSS
- Prioritization & Data Analysis & Reporting

Accomplishments*:*

- **Certified Scrum Master (Apr 2020 - Active)**
- **Certified Scrum Product Owner (Jan 2026 – Active)**
- **US Patent No. :** US11999413B2, (2024)
- **Provisional Patent Application** "Hood Pedestrian Energy Absorber" (2010)
- **Published** in **SAE World Congress & Exhibition** (2008)
- **President** - Fox Chase Condo Association Board of Directors (Sep 2016 – Sep 2018)
- **Treasurer** - OFUESI (Jan 2022 – Dec 2025)
- **M.S. in Engineering, Automotive Systems** - Kettering University - Flint, MI
- **Bachelors of Engineering in Automobile Engineering -** IRTT, India

Experience:

SELF EMPLOYED *(Jan 2026 – Current)*

Algorithmic Trading Platform — Program Lead / Technical Product Owner

Architecture, change-control process and validation methodology: vijaymichael.com/trading-system

- Directed iterative delivery of an automated trading system running three concurrent strategy variants plus paper-traded shadow engines, with acceptance criteria defined per variant.
- Prioritized a ~20-experiment backlog against statistical power analysis and cancelled candidates that failed significance testing, including one whose entire backtested return traced to a single outlier session.
- Established an additive-only change-management process for a production system handling live capital, gating every release on a 90+ check automated regression suite spanning dependency-injection ordering, state isolation, failure containment, and performance budgets.
- Required byte-level hash verification of all 167 existing files before deployment to prove non-interference.
- Led root-cause analysis on production incidents and converted each finding into permanent automated coverage.
- Traced three days of silent data loss to an undocumented launcher dependency, then encoded the failure mode as a regression test rather than a runbook note, eliminating recurrence.
- Translated ambiguous strategy requirements into testable specifications and stakeholder-facing analytics dashboards.

- Enabled data-driven go/no-go decisions across a 46-day evaluation window, surfacing statistically inconclusive results instead of reporting them as wins.

SHILOH INDUSTRIES

Product Engineer (Technical Program Lead) *(Oct 2021 – Dec 2025)*

- Primary liaison between customer engineering teams, suppliers, internal leadership, and manufacturing partners to ensure alignment on project scope, requirements, and deliverables
- Managed complex, cross-functional multi-phase product development programs from concept through production, ensuring quality release and faster time-to-market
- Led requirements gathering sessions with OEM clients, translating technical and business needs into actionable specifications, documentation, and project plans
- Produced detailed reports, designs, and status updates for stakeholders, ensuring transparency and alignment across engineering, operations, and leadership teams
- Coordinated change management activities, ensuring accurate documentation, communication, and implementation across internal and external teams
- Analyzed performance, cost, and feasibility data to support decision making and drive continuous improvement initiatives
- Managed vendor relationships, ensuring timely delivery, quality compliance, and alignment with project objectives
- Supported business development by contributing technical insights, feasibility assessments, and cost optimization strategies

BENTELER AUTOMOTIVE (Benteler Aluminum Systems)

Product Engineer *(Jul 2014 – Sep 2021)*

- Managed multimillion dollar development programs, coordinating cross functional teams across engineering, manufacturing, suppliers, and OEM customers
- Led stakeholder meetings, technical reviews, and requirement gathering sessions to ensure alignment on project goals, timelines, and deliverables
- Developed and maintained project documentation including specifications, reports, risk assessments, and change logs
- Analyzed engineering and performance data to generate insights, support decision making, and optimize product and process outcomes
- Drove continuous improvement initiatives that reduced development time, improved quality, and increased profitability
- Coordinated EBOM/MBOM updates, engineering changes, and communication across internal teams and external partners
- Successfully helped launch programs for various OEM's by supporting program, cost, manufacturing, quality, processes, continuous improvement

BENTELER AUTOMOTIVE (Benteler Aluminum Systems)

Advanced Development Engineer *(Oct 2010 – Jul 2014)*

- Automotive crash management expert - development of high strength aluminum structures for Federal safety regulation including FMVSS/IIHS/CMVSS/ECR
- Expert in forming simulations and crash analysis of 7XXX/6XXX Aluminum alloys with FEA tools like Hypermesh, LS-DYNA guiding tooling concepts for serial production with lessons learnt/knowledge transfer from prototyping.
- Review customer SOR/RFQ, Technical specifications, BOM to assess product manufacturing feasibility, propose & evaluate design changes to meet customer requirements.

- Work closely with CAD designers, manufacturing experts in development of value analysis and value engineering products
- Provide development, testing and technical reports to support product team and facilitating alignment with customer requirements

General Motors

Project Lead Engineer *(Mar 2010 – Oct 2010)*

- Managed the safety team to deliver battery pack designs with FEA tools for hybrid vehicle program
- Optimized and developed battery packs by analyzing the business requirements.

Shape Corporation

Application Development Engineer *(May 2007 – Mar 2010)*

- Conducted customer reviews and optimized designs using FEA tools and engineering techniques to match performance, cost and weight requirements
- Designed and developed black box product such as Vehicle Bumper Systems & Components
- Coordinated with test engineers and product engineers to correlate and compare the results obtained through engineering and physical crash tests

Detroit Engineered Products (DEP)

Intern Project Engineer *(Mar 2007 – May 2007)*

- Gathered requirements from Noise vibration and harshness; and Crash safety teams, performed analysis and delivered component level and full vehicle morphing of a car model