



Matthew J Lee

Mechanical Engineer/ Technical Project Manager

I will apply the latest Technical Project Management skills from UC Berkeley Extension to coordinate teams, organize schedules, and stay on budget. I also have a MBA from Carnegie Mellon, a MS/BS in Mechanical Engineering from UC Davis, 10 years of experience in aerospace, 5 years as an entrepreneur, and 2 years at a deep tech 3D bio-printing start-up. All of these skills have put me in a position to understand technical projects, communicate effectively with cross-functional teams, hit multiple moving targets at once, organize for maximum efficiency based on real-time numerical analysis, and provide leadership and vision at the company level.

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Relevant Experience

UC Berkeley Extension

Certification in Technical Project Management

- Websites: Wrike, Asana, Monday.com, Atlassian Jira and Confluence
- Expert Administrator level proficiency with Jira and Confluence
- Software Development Methodologies: Agile, Scrum, Kanban, Waterfall, Lean, Extreme Programming, DevOps, Hybrid, Agifall, Wagile
- Tools: Kanban Board, Scrum Board, Gantt Chart (Scheduling), Budgeting
- PSM1 (professional scrum master) Certified
- 270 hours coursework and 20 hours Udemy Jira proficiency
- Documentation: Work Breakdown Structure, Activity Diagram, Project Charter, Project Test Plan, Task List, Lessons Learned, Risk Analysis, Quality Management Plan, Resource Management Plan, Communications Matrix

Frontier Bio

VP of Engineering

- **Summary: responsible for every engineering aspect of a bio 3D printer**
- 3D Biological printer: Pneumatic, FFF, and Microvalve Technology, Electro-hydrodynamic Printing (EHDP)
- Design physical components with Autodesk Inventor 2019
- Program in G-code, C++, and Python
- Manage a team of engineers to create a go-to-market product
- Solidworks Simulation: Structural, Thermal, Dynamics, Frequency
- Working with CEO on lead generation and seed rounds fund raising. Directly involved with raising our initial \$400k from Taizo Son.

Lockheed Martin

Certified Principal Engineer (2 positions)

- **Summary: ensure subassembly functionality prior to vehicle integration**
- Principal Engineer responsible for mission-critical solar array release mechanisms (\$10k/satellite) on SBIRS high value (\$19.2B) early missile detection satellite
- Principal Engineer responsible for a satellite rotary encoder (high precision angle measuring device) (\$100k ea) on SBIRS
- Managed 100+ part and subassembly drawings, test procedures, and requirements documents. Inspected over 400 incoming hardware parts
- Tested assemblies in vibration, thermal, ambient, and acoustic environments
- Managed vendor schedule, relationship, meetings, and travel
- Demonstrated critical decision making by leading failure review boards and non-conformance reviews
- Wrote, updated, and released 20+ mechanical procedures

Skill Proficiency

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|---------------------|--|
| 3D CAD | <div><div></div><div></div><div></div><div></div><div></div></div> |
| DESIGN | <div><div></div><div></div><div></div><div></div><div></div></div> |
| DRAFTING | <div><div></div><div></div><div></div><div></div><div></div></div> |
| FEA | <div><div></div><div></div><div></div><div></div><div></div></div> |
| MANUFACTURING | <div><div></div><div></div><div></div><div></div><div></div></div> |
| ASSEMBLY | <div><div></div><div></div><div></div><div></div><div></div></div> |
| TEST | <div><div></div><div></div><div></div><div></div><div></div></div> |
| FRAMES & STRUCTURES | <div><div></div><div></div><div></div><div></div><div></div></div> |
| SHEET METAL | <div><div></div><div></div><div></div><div></div><div></div></div> |
| TEAMWORK | <div><div></div><div></div><div></div><div></div><div></div></div> |
| LEADERSHIP | <div><div></div><div></div><div></div><div></div><div></div></div> |

Skills and Attributes

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|---------------------------|---------------------|------------------|
| Solidworks | Autodesk Inventor | |
| AutoCAD | Siemens NX | Matlab |
| Finite Element Analysis | GD&T | |
| ANSI / ASTM Y14.5 | Tolerance Stacking | |
| Sheet Metal | Die Casting | Molding |
| Metal Frames & Structures | CNC | |
| Interconnect Diagrams | PCB/FPC | |
| Lean/ Six Sigma | Green Belt | SAP |
| Kaizen Events | Root Cause Analysis | |
| Javascript | HTML5 | Microsoft Office |
| Asana | Wrike | Monday.com |
| Jira | Gantt | Agile/Waterfall |

Education

Certificate in Technical Project Management

UC Berkeley

Master of Business Administration
Carnegie Mellon, Tepper School of Business

MS in Mechanical/Aeronautical Engineering

University of California, Davis

BS in Mechanical Engineering

University of California, Davis

Relevant Experience (continued)

Spacecraft Manager

- [Summary: lead teams to integrate subassemblies onto satellites](#)
- Worked on assembly, test, and launch operations of high-value commercial satellite programs: MUOS (\$7.4B), GeoEye (\$1.29B), and JCSAT (\$275M ea)
- Lead cross-functional teams to efficiently execute daily tasks in a hi-bay, clean room environment
- Certified Test Conductor for mechanical, electrical, thermal chamber, vibration chamber, and acoustic chamber operations
- Created plan of the day and coordinated labor, hardware, needed staff
- Lead 12+ workers through mechanical drawings and procedures

Mechanical Engineer

- [Summary: design and prototype a subassembly](#)
- Designed, drafted, and tested a mechanical package of circuit card assemblies and accelerometers on the FBM (\$100B) submarine launched missile defense program
- Created, released, and managed 25 drawings in the EPDM system
- Worked with dynamics, thermal, electrical, and circuit card assembly teams
- Performed presentations for the customer during quarterly reviews and PDR

Operations Leadership Development Program

- 1st rotation in Facilities Management. Managed buildings on our campus and real estate deals
- 2nd rotation worked as a Buyer processing orders to our vendors in SAP
- 3rd rotation worked in Lean/ Six Sigma group. Facilitated events and recorded \$500k cost savings. Obtained Green Belt.
- 4th rotation Deputy Program Manager. Helped with request for proposal for a new badge entry system.

UC Davis and Lawrence Livermore Labs

Research Assistant

- Thesis work in relation to development of an ASTM standard for the Slitting Method that measures residual stress
- Worked at Lawrence Livermore Labs on laser peening to extend part lifetime in fatigue up to 50x
- Experience in stain gaging, precision metrology, finite element analysis (FEA), usage of a Wheatstone bridge based instrumentation amplifier, operation of a wire EDM, Matlab, Abaqus, and Fortran programming, Linux, microscopy, and an ftp client
- Published twice in the Journal of Mechanical Engineering and Technology

Business Experience

Matley Entertainment LLC

CEO

- Created Blue Phoenix (www.bluephoenixricewine.com), the world's first Vietnamese rice wine
- Delicious rice wine that is both sweet and savory (umami), 18% ABV, similar to Japanese saké and Korean soju
- Developed my own highly effective sales techniques, documents, and objectives
- Performed all sales tasks including lead generation, creating appointments, in-person pitches, and follow-ups
- Highly effective sales, successfully sold to 12 of 13 restaurants pitched to (before COVID-19 shut down all of our customers)
- Developing a RTD anti-hangover functional hard seltzer product

Just1 Shoes, LLC

Founder

- Custom shoes company that sold the world's first (and only) DIY custom shoes kits. Front page of Google search for "how to customize shoes"
- Sourced 7 items from over 100 vendors to create the kits
- Listed on www.just1.shoes (Shopify), eBay, Amazon, and Etsy sales channels
- Established myself as an expert in the field. Website still gets 300 hits/day on my articles and continues to earn passive income from links to products.