Thomas Whitaker

Staff Materials Engineer

thomas.whitaker@email.com ◆ (510) 555-0173 ◆ Fremont, CA ◆ linkedin.com/in/thomaswhitaker

Summary

Staff materials engineer with 12 years in consumer hardware and EV components, the last 4 as technical lead for enclosure and thermal materials. Sets material strategy, specifications and qualification plans across 3 product lines, and leads failure analysis on the hardest field issues. Mentors engineers and explains tradeoffs plainly to design and executive reviews.

Experience

Staff Materials Engineer

Bayline Electric Vehicles — Fremont, CA — 01/2022 - Present

Technical lead in a 15-person materials engineering team for battery packs and drive units.

- Lead material selection for **3** battery pack generations, covering aluminum castings, thermal interface materials and adhesives.
- Establish qualification plans and specifications used by 40 suppliers, cutting part approval time from 16 weeks to 10.
- Direct failure analysis on coolant leaks and adhesive disbonds, removing a $6M warranty risk in 2024.
- Mentor 6 engineers and own the team's materials testing roadmap and $2M lab budget.
- Present material tradeoffs at program reviews, aligning design, purchasing and quality on 12 major decisions a year.

Senior Materials Engineer

Mission Peak Devices — San Jose, CA — 07/2017 - 12/2021

Materials group for laptops and wearables.

- Qualified anodized aluminum, glass and polymer housings for 9 product launches.
- Resolved cosmetic and corrosion defects through root cause analysis with overseas contract manufacturers, lowering yield loss 22%.
- Wrote 25 material specifications and test methods adopted across the hardware organization.

Materials Engineer

Silicon Valley Thermal Solutions — Santa Clara, CA — 06/2014 - 06/2017

Thermal management products for data center hardware.

- Tested thermal interface materials and gap fillers for 30 customer programs.
- Characterized solder joint reliability through thermal cycling of 1,500 samples.
- Authored about 8 customer test reports a month on thermal performance and long-term reliability.

Education

Master of Science

University of California, Berkeley

Materials Science and Engineering

Berkeley, CA

05/2014

Skills

Material Selection — Material Qualification — Material Specifications — Failure Analysis

Root Cause Analysis — Materials Testing — Thermal Interface Materials — Adhesives

Aluminum Castings — Technical Leadership