Albert Sein

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Education

University of Virginia Charlottesville, VA

B.S. Materials Science & Engineering, May 2027 | Accelerated M.Eng. Systems Engineering, May 2028

- Relevant Coursework: Thermodynamics of Materials; Kinetics of Materials; Structure & Defects; CAD & Additive Manufacturing; Corrosion, Batteries & Fuel Cells

Technical Skills

Characterization & Processing: SEM, EDS, XRD, light microscopy, selective laser melting, sectioning, polishing, etching
Thermal & Mechanical Testing: TIMA5, Corintis Therminator, thermal conductivity, thermal impedance, warpage/hotspot analysis, hardness and tensile testing
Design & Simulation: SolidWorks, Fusion 360, AutoCAD, Revit, CFD, 3D printing
Data, Automation & Controls: Python, MATLAB, Minitab, Excel, Design of Experiments (DoE), ANOVA, regression, root-cause analysis, Arduino Mini, BLE, breadboarding, electrical wiring

Engineering Experience

Celestica Inc. May 2026 – Aug 2026

Project Management & Engineering Intern, Thermal Engineering *San Jose, CA*

- Set up, calibrated, and ran TIMA5 thermal-impedance testing on liquid-metal thermal interface materials; prepared and loaded specimens, adapted test setup for complex geometries, and diagnosed anomalous readings.
- Built and validated an AI-assisted test-data pipeline across 150+ Therminator and TIMA5 runs, checking extracted values against raw logs and standardizing analysis-ready datasets.
- Standardized a DoE-based thermal-analysis framework using outlier screening, general linear model ANOVA, regression, and precision analysis to compare material performance and identify test drivers.
- Built an automated Clear-to-Build model across EVT, DVT, and PVT phases, supporting component-readiness tracking and scenario planning for engineering and executive stakeholders.
- Led four interns across a 12-site global initiative and built Claude, GPT, and Gemini workflows for engineering reporting, Excel processing, market intelligence, and operations.

UVA MSE, Ji Ma Lab Jan 2025 – May 2025

Additive Manufacturing Research Assistant *Charlottesville, VA*

- Designed and executed multi-factor DoE studies across five vacuum laser-melted builds of lunar regolith simulant, varying laser-processing parameters to investigate melt-pool stability, volatile release, and phase evolution.
- Prepared cross-sectional specimens through sectioning, polishing, and etching; used light microscopy, SEM, and EDS across three builds to evaluate porosity, microstructure, phase evolution, and oxide-to-metal reduction.
- Investigated process-induced porosity and phase changes using parameter-to-phase maps, energy-density trends, thermal gradients, and cooling behavior; presented root-cause findings and recommended parameter changes for subsequent builds.

Setty & Associates May 2024 – Aug 2024

Mechanical Engineering Intern *Charlottesville, VA*

- Developed CFD models and mechanical designs for commercial and educational HVAC systems, completing ventilation, psychrometric, and load calculations across 12+ concurrent projects.
- Reviewed Revit and AutoCAD project files, implemented design revisions, and resolved BIM and shop-drawing RFIs while applying ASHRAE requirements.

Hardware & Engineering Projects

Stealth Consumer Hardware Startup Jun 2026 – Present

Co-Founder & Product Lead *Charlottesville, VA*

- Designed and iterated enclosure CAD in SolidWorks and Fusion 360, incorporating component packaging, wiring clearance, part tolerances, and assembly simplification across prototype revisions.
- Built and tested Arduino Mini breadboard prototypes with electrical wiring, embedded controls, and BLE hardware; integrated device-state control with a Swift/SwiftUI interface.
- Translated 30+ user interviews into product and system requirements for a consumer hardware/iOS MVP, balancing mechanical, electrical, and software constraints.