Benjamin Lee

Richmond, BC V6Y 1Z2 • (778) 233-2326
BenL25846@gmail.com • linkedin.com/in/benjamlee

Summary

As a highly motivated and detail-oriented engineering professional with a strong foundation in UAS technology, I am thrilled by the opportunity to contribute to Maglev's pioneering work in electric VTOL passenger vehicles and vertical flight propulsion/guidance systems. With experience in designing, building, and optimizing Uncrewed Aircraft Systems (UAS) components, along with a passion for innovation, I bring a robust analytical skillset to the table. I am well-prepared to collaborate with Maglev's multidisciplinary team to revolutionize urban air mobility. My background in mechanical engineering, combined with hands-on electromechanical and manufacturing experience, positions me to drive progress in creating high-performance, ultra-quiet vertical flight systems that redefine transportation. I am excited to leverage my technical expertise and dedication to help Maglev realize its vision for the future of mobility.

Education

BASc Mechanical Engineering, 2026
University of British Columbia, Canada

- Relevant coursework: Mechanics of Materials, Dynamic Systems and Vibrations, Fluid Mechanics, Electrical Circuits, Material Science, Engineering Ethics, Thermodynamics
- Skills: MATLAB, ANSYS, CAD Software (SolidWorks, OnShape), Python, C++, C, Arduino

Relevant Experience

UBC Uncrewed Aircraft Systems, Vancouver, BC
Mechanical Payload Sub Team Member (09/2022)-(Present)

- Utilized Computer-Aided Design (CAD) software such as SolidWorks to model and design components for UAS payloads, demonstrating proficiency in CAD tools.
- Collaborated closely with cross-functional teams, including electrical engineers and software developers, to ensure seamless integration of mechanical components with other UAS subsystems.
- Successfully integrated sensors, actuators, and microcontrollers to create intelligent mechatronic systems, showcasing proficiency in hardware integration and programming in Python and C++.

- Assisted in the selection and sourcing of materials and components for UAS construction, considering factors such as weight, durability, and cost-effectiveness, valuable for supply chain management.
- Participated in the fabrication and assembly of UAS mechanical components, gaining hands-on experience with 3D printing, laser cutting, waterjet cutting, and more manufacturing techniques and tools, which can be applied in manufacturing processes.

Escape Trailer Industries, Chilliwack BC
Manufacturing Engineer Intern (05/2023)-(01/2024)

- Contributed to the successful launch of a new product line (Escape 23) by coordinating prototype builds with CAD software (OnShape), conducting feasibility studies, and overseeing the transition to full-scale production.
- Proficiently utilized Microsoft Office, particularly Excel, to create and manage detailed Bill of Materials (BOMs) and efficiently oversee inventory, demonstrating a strong command of spreadsheet tools to support production processes.
- Collaborated with the manufacturing team to identify process inefficiencies and implemented Lean Six Sigma principles, resulting in a 60% reduction in production cycle time.
- Played a pivotal role in the setup and programming of CNC machinery, significantly enhancing production efficiency and enabling the creation of complex parts in a fraction of the time they would have taken using traditional manufacturing methods. This effort resulted in a remarkable 85% machine uptime rate and a 20% reduction in unplanned downtime.
- Conducted root cause analysis on manufacturing defects, implemented corrective actions, and decreased defect rates by 25% within the first half of the internship.