

ELIAS PRINCE

eliprince@gmail.com | (646) 556-5163 | www.linkedin.com/in/eliasprince

PROFESSIONAL EXPERIENCES

Innovasea | *Mechanical Engineer / Project Lead*

Boston, MA | June 2022 – Present

- Mechanical lead of machine learning powered subsea camera, driving electro-mechanical integration, advanced electronics packaging, thermal and structural analysis, as well as hands-on subsystem testing and validation
- Developed the mechanical team's work breakdown structure and schedule, led new technology investigations, and coordinated across engineering groups to deliver on-time prototypes
- Lead engineer and project manager for the mortality recovery program, designing subsea mechanical systems and operational strategies to safely and efficiently remove deceased fish from submerged aquaculture pens
- Collaborated with internal field teams and customers to implement prototypes, design site-specific mortality systems, collect field data, and oversee on-site installations and deployments
- Engineering team lead for all Finite Element Analysis (FEA) of offshore structures, standardizing SolidWorks Simulation practices to improve efficiency and consistency across the organization
- Created SolidWorks models and production drawings for subsea and surface weldments and assemblies supporting R&D projects including pen design, feed distribution systems, and harvest operations
- Designed and built proof-of-concept prototypes, leveraging rapid manufacturing techniques such as 3D printing and integrating commercially available off-the-shelf components
- Partnered with internal manufacturing team and external vendors to develop DFM-optimized methods that improved operational efficiency, streamlined field installation, and reduced production costs

Agora Jobs | *Co-Founder*

Boston, MA | October 2022 – May 2024

- Founded a company with the goal of streamlining the job application workflow by delivering more time and freedom back to job seekers to focus on ensuring they are the best applicant they can be
- Developed a prototype platform featuring a user-friendly dashboard that tracked job application statuses, job search related events, and customizable job specific notes
- Conducted customer discovery and problem analysis through A/B testing, direct engagement with undergraduate students, and university career center professionals
- Launched product at the University of Maryland 2024 Undergraduate Career Fair and successfully validated market demand by closing first round of paying customers

Viking Systems International | *Project Engineer*

Annapolis, MD | July 2020 – May 2022

- Performed Nastran-based linear and non-linear finite element strength analyses of ships and offshore structures to ensure structural integrity and performance for both commercial and government clients
- Utilized hand calculations to validate proof of principle and support Finite Element Analysis (FEA) results
- Developed full scale finite element models and high detail sub-models using FEMAP, based on structural drawings, to accurately represent the structures being analyzed
- Spearheaded modeling and structural analysis for U.S. Navy Expeditionary Fast Transport program and devised innovative structural reinforcements to meet manufacturing and naval code requirements
- Designed and implemented new APIs and advanced Excel macros using VBA to automate workflow, improve efficiency and refine accuracy for modeling and post-processing analysis
- Created hydrostatic and dynamic loads tailored to specific hull forms, generating targeted structural responses

Draper Laboratory | *Mechanical Engineer Intern*

Cambridge, MA | June 2019 – August 2019

- Supported U.S. Navy research program to develop heat exchangers for cooling electronic guidance systems
- Employed metal powder based additive manufacturing to create advanced designs and reduce part count
- Performed thermal analysis using ANSYS Workbench and designed test setups for the heat exchangers

PROFESSIONAL SKILLS

- **Product Development:** Bubble, Miro, Airtable, Product Design Specification, Customer Discovery
- **Engineering:** Finite Element Analysis (FEA), SolidWorks, SolidWorks Simulation, Nastran, FEMAP, VBA, Arduino, Python, ANSYS, MATLAB, Mathematica, Autodesk Inventor, Design for Manufacturing (DFM)
- **Project Management:** Product Data Management (PDM), Jira Agile Project Management, SQL

EDUCATION

University of Maryland
B.S. Mechanical Engineering

College Park, MD
May 2020