AUBREY (ANMEI) LITTLE

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EDUCATION

Boston University, Boston, MA — May 2023
Master of Engineering in Biomedical Engineering, Cardiac Surgery Specialty. (GPA Overall: 4.00/4.0)

Yale University, New Haven, CT — May 2022
Bachelor of Science in Biomedical Engineering, with distinction in the major (GPA Overall: 3.84/4.0)

Relevant Coursework:

Medical Device Design	Neurotechnology Devices	Biomaterial-Tissue Interactions
Patents / IP / Commercialization	Biosignals and Images	Biomedical Computation (MATLAB)
Statistics and Data Science (R)	Computer-Aided Design (CAD)	Machine Learning (Python)

RELEVANT EXPERIENCES

Kelly Vision Center, *Technician / Scribe / Consultant* — Jun 2022 – Sep 2022

- Formulated an interactive Excel sheet to price orders based on lens material, add-ons, insurance copays, and the current lens market.
- Spearheaded marketing strategies, including designing the website, QR code business cards, and in-office marketing materials.
- Administered vision and medical workups on patients, performed tests and retinal photos, inserted data into charts, scribed for doctors, and coded for insurance.

DICOM Director, *Intern* — Dec 2020 – May 2022

- Evaluated market segmentations of 3D medical imaging in augmented reality and conducted competitive analysis to advise sales.
- Expanded and improved company marketing assets by creating effective slide decks, website pages, brand guides, tutorial videos, and product workflow diagrams.

Vanderbilt Undergraduate Summer Research Program, *Morgan Lab / Vanderbilt University Institute of Imaging Science* — Jun 2021 – Aug 2021

- Investigated network connectivity and epileptic spread in a database of 250+ epilepsy patients and controls.
- Coded in MATLAB and Linux to combine functional MRI data with diffusion-weighted imaging, tractography, and brain segmentation.
- Computed low frequency fMRI signals in white matter to help localize the spread of epilepsy.
- **Published:** *Characterization of resting functional MRI activity alterations across epileptic foci and networks, Cerebral Cortex (2022).*

PROJECTS

Cardiac Surgery Device, *Master's Project in Medical Product Development*

- Identify unmet clinical needs by directly observing 50 hours of cardiac surgery at Boston Medical Center.
- Design, model, and 3D print prototypes of a medical device for improving leg vein harvesting during coronary artery bypass procedures.
- Execute verification / validation tests and manage all documentation in a design history file.
- Develop relevant regulatory and IP plans for commercialization.

Sternal Force Measuring Instrument, *Senior Design Project*

- Designed, modeled, and 3D printed a prototype surgical instrument to measure sternal force during the surgical treatment of Pectus Excavatum.
- Executed FEA feasibility analysis and verification with compression and fatigue testing with hydraulic test systems.

Multiscale Model of Diabetes, *MATLAB project*

- Modeled diabetic conditions, such as myofilament glycation, in a multiscale model of the left ventricle in MATLAB.
- Validated model outputs with physiological observations, such as blood pressure, heart rate, and cardiac output.

OTHER EXPERIENCES

GoPeer, *Math / Physics / Spanish / Test Prep Tutor* — Jun 2020 – Present

University Physics (PHYS180), *Grader* — Aug 2021 – Dec 2021

Introduction to Medical Software, *Coursera Course Aide* — Apr 2021 – Oct 2021

- Edited lecture slides and 13 hours of videos for an online Yale Coursera course with over 4,500 students enrolled.
- Created and lectured a vignette on the Therac-25 incidents and the impacts on modern medical software development.

LEADERSHIP & ACTIVITIES

Yale Scientific Magazine (YSM), *Layout Editor, Writer, Artist* — 2019 – 2022

Yale Women's Competitive Club I Soccer Team (YWCS), *Coach, Captain, Scheduler, Treasurer, Apparel Officer, Tournament Coordinator* — 2018 – 2022

Biomedical Engineering Society (BMES), *Treasurer / Secretary (2020-21), Hackathon Planning Committee, BME career fair founder* — 2020 – 2022

Yale Design for America (DFA), *Team Lead, Human-Centered Web Design Project for Small Businesses in New Haven* — 2019 – 2021

SKILLS

Languages: Intermediate Spanish
MATLAB***, Microsoft Excel***, R**, Linux**, Python**, Git*, SQL*,
SolidWorks, Adobe Creative Cloud (Photoshop, XD, Premier Pro, InDesign, Illustrator, Lightroom), Canva, Microsoft Office, ScanIP / Image Segmentation