

Annabel Lee

Student and Lifelong Maker

423-530-0759

halfsohappy@
gmail.com

annabel-lee.xyz

Education

■ Duke University, Durham NC

August 2022 - Present GPA: 3.3

Currently a third year student;
double majoring in Electrical & Computer
Engineering and Theater Studies

■ Dobyns-Bennett High, Kingsport TN

August 2017 - April 2022 GPA: 4.0

Graduated in class of 2022 with highest
honors.

Employment

■ Duke Coffeehouse, Durham NC

August 2023 - Present Sound Tech, Barista

Part-time job at coffee shop / music
venue, setting up and mixing sound for
performances and working as barista.

Projects

full portfolio at annabel-lee.xyz

Synchronized LED Accessory Set 2024

7 wireless Bands with 32 adressable LEDs each, based on custom
PCBs with motion tracking, <12ms update latency.

Digital Tensiometer Fall 2024

ECE 495 Group Project. High-fidelity device measures tension in
sailboat rigging using load cell and custom machined mechanism.

FPGA Synthesizer Spring 2024

Synthesizer with MIDI and i2s support running on soft core CPU,
with polyphony, FFT analysis, multiple waveforms.

Nixie Tube Pomodoro Timer Fall 2024

Portable pomodoro timer made entirely with digital logic
featuring vintage Nixie Tubes, soviet-era ICs, and 200V PSU.

LED Suspender Set Spring 2024

Leather suspenders with 216 integrated adressable LEDs that are
reactive to movement and wireless control with custom remote.

Notable Courses

ECE 350: Digital Systems
ECE 495: Product Design
ECE 280: Signals and Systems
ECE 270: Fields and Waves
ECE 250: Computer Architecture
CS 201: Data Structures &
Algorithms

Skills

Circuit & PCB Design,
Soldering (Hand/Air/Hot Plate,
THT & SMD),
Embedded Systems,
Wearable Tech,
Digital Signal Processing,
End-to-end Design,
Adobe Illustrator,
3D CAD,
Stick Metal Arc Welding,
Woodworking & Carpentry,
Sound Mixing/Audio Engineering,
Leatherworking,
Sewing & Tailoring,
Languages: C, Python, Verilog,
C++, MATLAB

Awards

Duke Band Section MVP (2024)
DBHS Band Director's Award (2022)
for above-and-beyond service to band
National Merit Finalist (2021)

Activities

Duke University Marching & Pep
Band (2022-Present)
Duke Players (2022-Present)
Duke Club Ballroom Dance
(2022-Present)
Duke Swing Dance (2023-Present)
DBHS Competitive Band (2018-2022)
DBHS Indoor Percussion (2022)
DBHS Student Council (2018-2022)
Middle School Band (2015-2018)