ANUSHA **DATAR**

11 Kingsdale Street, Burlington MA 01803 · (781)-718-4291
anushadatar@gmail.com · https://linkedin.com/in/anusha-datar/ ·anushadatar.com/

EDUCATION

OLIN COLLEGE OF ENGINEERING **MAY 2021**

BACHELOR OF SCIENCE IN ELECTRICAL AND COMPUTER ENGINEERING

Recipient of Four-Year, Half-Tuition Merit Scholarship

Relevant Coursework (through Fall 2018): Data Structures and Algorithms, Computer Networks, Computer Architecture, Analog Electronics, Modeling and Simulation in Python, Signals and Systems, Electricity and Magnetism, Linear Algebra, Multivariable Calculus.

Activities: Rocket Team (Engineer, Electronics with a focus on firmware and software), Human Augmentation Lab (Researcher, Signal Processing and Brain-Computer Interfaces), Hackathon Club (Founder), Student Government Leadership, Stay Late and Create Leadership, Peer Advocate, Sandwich Discourse Club (Founder)

SKILLS

COMPUTING: C, Python, Java, Embedded Development, Wireless Networking, HTML/CSS/JS, Git
OTHER: Electronics Design/Fabrication, HAM Radio (General Licensed), 3D Printing/Basic CAD, Basic Machine Shop/Tools, Laptop Diagnostics/Repair (Dell Certified)

EXPERIENCE

SILICON LABS **EMBEDDED SOFTWARE APPLICATIONS ENGINEERING INTERN** **SUMMER 2018**

Developed customer-facing programs, demonstrations, and projects in C with a focus on ZigBee 3.0 wireless network security for microprocessor/radio modules. Public-facing projects include a set of customer code and instructions for a trust center swap-out toolkit for the EmberZNet stack on Host/NCP and SoC platforms.

THE MITRE CORPORATION **EMBEDDED SOFTWARE INTERN** **SUMMER 2017 AND JANUARY 2018**

Created Python/C++ maintenance and platform abstraction frameworks for multi-platform GNSS system. Also applied principles of machine learning to wireless signal modulation recognition and decoding for real-time data analysis.

OLIN COLLEGE OF ENGINEERING **IT TECHNICIAN** **SEPTEMBER 2017 – PRESENT**

Diagnose, repair, and maintain student and school devices, equipment, and networks.

OLIN COLLEGE OF ENGINEERING **TEACHING ASSSITANT** **SEPTEMBER 2018 – PRESENT**

Hold office hours and assist with grading for courses such as Analog Electronics and Data Structures and Algorithms.

ART OF PROBLEM SOLVING **GRADER/TEACHING ASSISTANT** **APRIL 2017 – PRESENT**

Provide thorough and inquiry-based feedback and guidance in Python and mathematics courses in real time, on online forums, and for formal problem sets through an online classroom system.

PROJECTS

CNC PCB MILL, SEPTEMBER – DECEMBER 2018

Worked with an interdisciplinary team to build and develop a CNC PCB mill with smooth user interface capable of producing complex designs. Personally focused on electronic and software design and implementation.

VERILOG AND GAME OF LIFE CPU, SEPTEMBER – DECEMBER 2018

Developed complete MIPS-compliant single-cycle and pipeline CPU using Verilog in three-person team. Then explored alternative computing frameworks by building an adder in Conway's Game of Life.

WIZARDS' CHESS, JANUARY – MAY 2018

Designed and fabricated automated physical chessboard where a user can leverage voice commands to play chess against an AI-powered opponent. Worked on this project in an interdisciplinary team of four over one semester as an independent personal project based on a prior prototype built at a hackathon. Personally focused on electronic system design and assembly, software design, and voice recognition.

MINIATURE TOTAL STATION, JANUARY – MAY 2018

Designed, prototyped, and tested robust and sensor fusion enabled elevation and depth measurement and collection unit for Wellesley College geology department using a custom electronics configuration, C, and Python in an interdisciplinary three-person team. Finalized prototype was ten times more affordable than existing products.

RASPBERRY PI TRANSMITTER, SEPTEMBER – DECEMBER 2017

Individually built C and Python library for transmitting any arbitrary radio wave on any frequency using Raspberry Pi minicomputer without any external hardware as an independent personal project. Validated functionality by sending commands to a remote controlled car.