# **CONNOR COALE**

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## **EDUCATION**

## **Thayer School of Engineering**

March 2023

Bachelor of Engineering with focus in Computer Engineering

Dartmouth College, Hanover, NH

June 2022

Bachelor of Arts in Engineering Sciences Modified with Computer Science

GPA: 3.75/4.00

## TECHNICAL SKILLS

C, Python, VHDL, Verilog, Chisel, Bash, Git, LaTeX, MATLAB, Microsoft Office tools, SolidWorks

### ENGINEERING AND SOFTWARE EXPERIENCE

SiFive, Remote (San Mateo, CA)

June 2022 - Sept 2022

Platform Engineering Intern

- Performed timing analysis for various RISC-V cores to improve frequency on internal testing platform to reduce SPEC2k6 runtimes by 17-50%
- Implemented configurable modules in Chisel for validation platform to allow customizable testing/verification

## Thayer School of Engineering, Hanover, NH

June 2021 – August 2021

Teaching Assistant for Digital Electronics

- Ran lab sections in to teach students to use and program Basys3 boards using VHDL
- Mentored three groups as they developed their independent final projects

### Kadant Black Clawson, Lebanon, OH

March 2021 – June 2021

Manufacturing Engineering Intern

- Tracked and documented repair manufacturing process for multi-ton pulping rotors
- Presented solutions for improving efficiency of repair process, cutting billable time by 15-30%

## Thayer School of Engineering, Hanover, NH

September 2020 – November 2020

Teaching Assistant for Discrete and Probabilistic Systems

- Hosted help sessions two times a week for 3-10 students to assist with debugging MATLAB code
- Solved problem sets and generated solution keys using LaTeX formatting

# ENGINEERING AND SOFTWARE PROJECTS

## RISC-V CPU in Logisim, Developer

August 2022

- Designed single stage RV32I processor with 16MB of data memory and 4KB of instruction memory capable of running C programs compiled using RISC-V GCC
- Built in Logisim circuit simulation software

## Tiny Search Engine, Developer

July 2021

- Developed search engine application in C using various data structures to store contents
- Comprised of depth-restricted page crawler, indexer, and querier components for speedy retrieval of data

## "Simon" Memory Game, Co-creator

July 2020 - August 2020

- Developed memory game on a Basys3 FPGA development board using VHDL
- Generated random sequence using time-seeded linear feedback shift register and stored in RAM for use during game along with frequencies and output for associated tone for each color according to the original game design

# LEADERSHIP EXPERIENCE

# Dartmouth Emerging Engineers, Lead TA, Hanover, NH

December 2020 – Present

- Host group tutoring/study sessions for engineering prerequisite classes for underclassmen
- Advise younger students who are still exploring Thayer on courses, schedules, professors, and anything for which upperclassmen engineers may be able to give advice
- Coordinate biweekly meetings with faculty advisors and TAs to recap weekly sessions

# Men's Ultimate Frisbee, Captain, Hanover, NH

May 2021 - June 2022

- Organized practice schedules and led team on the field
- Planned logistics for travelling to and from monthly weekend competitions as far as California and Texas
- Acted as intermediary between players to ensure good relationships are maintained and to achieve the best possible team performance

## Robots by the C, Captain, Manchester Essex Regional HS

December 2013 - June 2018

- Kickstarted use of SolidWorks on high school robotics team
- Qualified to compete in World Championship (2017) in St. Louis

#### **INTERESTS**