

# DUNCAN BRITT

Boulder, CO

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## SUMMARY

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Computer Science student. Open to all opportunities. Website: **duncanbritt.com**

## EDUCATION

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**University of Colorado, Boulder**  
**B.S., Computer Science**

Expected Graduation: May 2025  
*Boulder, CO*

**Arapahoe Community College**  
**A.S., Computer Science, *Summa Cum Laude***

Graduated May 2023  
*Littleton, CO*

## TECHNICAL STRENGTHS

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<b>Programming Languages</b>	Proficient in C++, C, JavaScript, Ruby Familiar with Scala, Python, Go, Common Lisp, OCaml, and MIPS Assembly Language
<b>Markup Languages</b>	HTML/CSS
<b>Protocols &amp; APIs</b>	HTTP, The Document Object Model
<b>Databases</b>	PostgreSQL
<b>Tools</b>	Git, Emacs, familiar with Docker

## EXPERIENCE

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**Genetic Logic Lab at CU Boulder**  
*Software Developer*

May 2023 - Present  
*Boulder, CO*

- The research in the lab focuses on the interdisciplinary synthetic biology work in the overlap between electrical engineering, mathematical modeling, and genetic biology. Working on the creation of genetic design automation programs similar to electronic design automation programs for circuit designs.
- Design, develop and modify software systems.
- Collaborate with others to determine design specifications or details.

**Parrent Technology Solutions**  
*Coding Instructor*

April 2023 - May 2023  
*Denver, CO*

- Taught a 6-week coding class to children aged 8-11 at Sherrelwood Elementary School.
- Instructed students individually and in groups, using teaching methods such as lectures, discussions, and demonstrations.
- Established and enforced rules for behavior and procedures for maintaining order among the students.

**ACC Robotics Team**  
*Lead Programmer*

October 2022 - May 2023  
*Littleton, CO*

- Funded by NASA's Colorado Space Grants Consortium, built an autonomous mobile robot.
- Wrote, analyzed, reviewed, and rewrote programs, applying knowledge of computer capabilities and robotics.
- Assigned, coordinated, and reviewed work and activities of programming personnel.
- Trained subordinates in programming.

**Arapahoe Community College**  
*Computer Science, Math & Physics Tutor*

August 2022 - Present  
*Littleton, CO*

- Provided instruction to individual students to improve academic performance.
- Reviewed class material with students by discussing text, worked solutions to problems, and reviewed assignments.

**Third & James Recording Studios**  
*Audio Engineer*

November 2018 - September 2021  
*Denver, CO*

- Recorded music and speech on recording media, using recording equipment.
- Conferred with producers, performers, and others to determine and achieve the desired sound for a production.
- Identified equipment problems and adapted to them during recording sessions.
- Trained interns in Audio Engineering.

## PROJECTS

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**SeqImprove - Genetic Logic Lab at CU Boulder**  
*Developer*

Ongoing  
*Boulder, CO*

- Application for annotating and curating genetic circuits. Delivered a talk about my work on this project at the 15th annual International Workshop on Biodesign Automation, held at Boston University.
- <https://seqimprove.synbiohub.org/>

**Software Generated Word Ladder Puzzles, Web App**  
*Developer*

January 2022  
*Littleton, CO*

- Implemented the full stack including the generation of puzzles, account creation, deletion, login/logout, public leaderboard, and account history. Used PostgreSQL. <https://bit.ly/3nFnR39>

**Templating Language for Frontend Web Development**  
*Developer*

January 2022  
*Littleton, CO*

- Designed the language, implemented the compiler, (lexer, parser, code-generator), and API using JavaScript. Created the documentation website using the language. <https://bit.ly/3tGgjY1>

**Path Planning Tutorials**  
*Developer*

March 2023  
*Littleton, CO*

- Demonstrations of RRT and A\* path planning algorithms embedded in my blog.
- <https://duncanbritt.com/blog/path-finding-with-rrt/path-finding-rrt>
- <https://duncanbritt.com/blog/path-finding/path-finding>

**School Assignment Tracker**  
*Developer*

July 2022  
*Littleton, CO*

- To-do list application with query language interface. Written in C++. <https://bit.ly/3NHITVY>

**Tic-Tac-Toe**  
*Developer*

September 2021  
*Littleton, CO*

- Developed using the Ruby programming language. Game includes helper tool that recommends moves.
- <https://github.com/Duncan-Britt/Tic-Tac-Toe#readme>

**Algorithms**  
*Developer*

Ongoing  
*Boulder, CO*

- Implementations of the algorithms from my university course in Fall 2023.
- <https://github.com/Duncan-Britt/algorithms#readme>