

Brian Tan

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SUMMARY

I am a first year PhD Student in Computer Science at the Colorado State University advised by Dr. Ewan Davies researching in Approximate Counting and Combinatorics. I have graduated with my Bachelor's Degree in Computer Science and Mathematics at Spring 2023. I have a very strong mathematical background. I am proficient in many programming languages. My research interest is in Theoretical Computer Science and Brain Computer Interfaces and the further applications to it.

EDUCATION

Colorado State University, Fort Collins, CO Fall 2023 – Present

Doctor of Philosophy / Computer Science : Research in Approximate Counting under Professor Ewan Davies

Related Coursework: Machine Learning, Combinatorics

GPA: -

University of Colorado, Boulder, CO Summer 2022 – Spring 2023

Bachelor of Arts / Computer Science: Concentration in Artificial Intelligence and Machine Learning

Bachelor of Arts / Mathematics: Computational Track

Related Coursework: Algorithms, Database Systems, Software Development Methods and Tools, Numerical Analysis, Combinatorics, Real Analysis, Probability Theory, Introduction to Robotics, Human Computer Interaction, Theoretical Foundations of Data Science, Statistical Methods and Applications 1, Intro to Artificial Intelligence, Applied Machine Learning, Principles of Programming Language, Universal Design For Digital Media

GPA: 3.61

Front Range Community College, Boulder, CO Fall 2021 – Spring 2022

Associate of Science / Computer Science

Related Coursework: Java, C++, Discrete Mathematics, Computer Architecture, Linear Algebra, Differential Equations

GPA: 3.84 – Magna Cum Laude

Edmonds College, Seattle, WA Summer 2021

Related Coursework: Physics, Calculus

GPA: 4.0

RELEVANT EXPERIENCE

Graduate Teaching Assistant Fort Collins, CO

Computer Science Department at Colorado State University August 2023 - Present

Working as a Graduate Teaching Assistant for the Computer Science Department at Colorado State University.

Course Taught: -

Research Assistant Boulder, CO

SHINE Lab in the Institute of Cognitive Science (ICS) at CU Boulder July 2022 – March 2023

Working as a Research Assistant to Professor Leanne Hirshfield from University of Colorado, Boulder in the SHINE Lab (Institute of Cognitive Science Department), and for the NSF National AI Institute for Student-AI Teaming (iSAT) Lab.

Research Assistant Boulder, CO

Applied Mathematics (APPM) Department at CU Boulder January 2023 – March 2023

Working as a Research Assistant to Dr. Zachary Kilpatrick and Dr. Tahra Eissa under the department of Applied Mathematics. Using Bayesian Inference Models on the field of computational neuroscience.

Research Assistant Boulder, CO

Electrical, Computer & Energy Engineering (ECEE) Department at CU Boulder May 2022 – June 2022

Working as a Research Assistant to Professor Ute Herzfeld from University of Colorado, Boulder. Using Machine Learning for Algorithmic Development of Data processing from NASA's ICESat-2 Satellite.

Microsoft TEALS (Technology Education and Literacy in School) Jackson, MS
Volunteer Teacher 2021 - 2022
Taught Murrah Highschool Students in Jackson, Mississippi, remotely on Python 1 Course. TEALS program is a Microsoft Philanthropical program that is built to give computer science education for low-income schools.

AWARDS & CERTIFICATION

2023 Outstanding Student Award (Bachelor of Arts) May 2023

Computer Science Department, CEAS, University of Colorado, Boulder

Awarded the Outstanding Student Award of the Bachelor of Arts program in Computer Science.

2023 Discovery Learning Award May 2023

Computer Science Department, CEAS, University of Colorado, Boulder

Awarded the Discovery Learning Award in Computer Science.

2023 CEAS Graduating Student Research Award: Nominated February 2023

College of Engineering and Applied Science, University of Colorado, Boulder

Nominated for the CEAS Graduating Student Award for Research.

2023 CEAS Graduating Student Academic Engagement Award: Nominated February 2023

College of Engineering and Applied Science, University of Colorado, Boulder

Nominated for the CEAS Graduating Student Award for Academic Engagement.

2023 CEAS Graduating Student Community Impact Award: Nominated February 2023

College of Engineering and Applied Science, University of Colorado, Boulder

Nominated for the CEAS Graduating Student Award for Community Impact.

2021 World Mathematical Invitational Preliminary Round: Bronze April 2021

World Mathematical Invitational

Achieved Bronze on the preliminary round of the World Mathematical Invitationals Competition.

2021 IGCSE Distinction Honor August 2021

Cambridge Assessment International Education

Achieved five A stars and two A out of all the seven subjects for IGCSE.

PROJECTS

Image Compression Using Singular Value Decomposition March 2023

GitHub Link: <https://github.com/briantan16/SVD-Image-Compression>

SKILLS

Java, C++, MIPS Assembly Language, Python, MATLAB, HTML, CSS, JavaScript, Word, Excel, PowerPoint, Algorithms, Arduino, Mathematical Problem Solving, Logical Problem Solving, fNIRS, EEG, SQL, Kinects, PsychoPy, Scala, Data Analysis, Machine Learning

FUNDINGS/GRANTS

Graduate Teaching Assistantship for PhD Fall 2023 – Present

Computer Science Department at Colorado State University

Received funding for PhD program through a teaching assistantship by the Computer Science Department at Colorado State University.

REFERENCES

Leanne Hirshfield, Cara Spencer, Emily Doherty, Rachel Dickler, Zachary Kilpatrick, Tahra Eissa, Kenneth Monks

MEDIA COVERAGE

‘Powerhouse’ Computer Science student set to graduate at 17

October 2022

By Grace Wilson, CU Boulder CS Department

<https://www.colorado.edu/cs/2022/10/31/powerhouse-computer-science-student-set-graduate-17>

‘Innate Curiosity’ fuels CU Boulder Graduate, 17

May 2023

By Olivia Doak, The Daily Camera

<https://www.dailycamera.com/2023/05/10/innate-curiosity-fuels-cu-boulder-graduate-17/>

Graduation Day at CU Boulder Included 17-year-old Student

May 2023

By Deb Stanley, Denver 7

<https://www.youtube.com/watch?v=Hew6220tCVc>