Mudi Yang

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Education

Columbia University 2023 - 2025 Part time
- Master of Science in Computer Science. Foundations of Computer Science track.

Yale University 2018 - 2022
- Bachelor of Science in Computer Science. GPA 3.60.
- Teaching assistant for CPSC 474/574 Computational Intelligence for Games and CPSC 201 Mathematical Tools for Computer Science.

Work & Research

Graphics Compiler Engineer, Qualcomm: Graphics High Level Compiler team. *2022-Present*
- Develop new features and maintain support for Qualcomm's Adreno Graphics Compiler, focusing on the OpenGL API.
- Developed AMBER based unit testing frame work for graphics and compute shaders. *Internship Summer 2021*

Student Researcher, Bhattacharjee Group, Yale. *2021-2022*
- Developed, tested, and analyzed a quantum random walk model for the two alternative forced choice decision problem.

Undergraduate Learning Assistant, Department of Computer Science, Yale. *2021-2022*
- Teaching assistant for CPSC 474/574 Computational Intelligence for Games and CPSC 201 Mathematical Tools for Computer Science.

Student Researcher, Gerstein Bioinformatics Lab, Yale. *2019-2021*
- Full stack development on PARSE Project for identifying potentially causal and LD RBPs related to disease.

Summer Research Intern, Ernst lab, UCLA Bruins in Genomics Program. *Summer 2020*
- Developed machine learning extension to extend the Sharpr-MRPA statistical model for genomic analysis with the Jason Ernst Lab in the UCLA Institute for Quantitative and Computational Biosciences.

Student Researcher, Radev Group & LILY, Yale. *Summer 2019*
- Designed extractive-abstractive model for DNN based multi-document summarization and experiments to test its capabilities, benchmarked extractive model on the Multinews dataset.

Publications

Mudi Yang, Lorenzo Flores, Himnish Hunma, Bernardo Trevisan. Exploring the impact of sentiment analysis on current methods of fake news detection. *Yale Undergraduate Research Journal.* Vol 3.1. 2022
- Developed BERT based sentiment analysis DNN to extend fake news detection algorithms.

Mudi Yang, Kelly Holley-Bockelmann, Ferah Munshi. Radiation Emissions of Primordial Black Holes as Dark Matter in a Dwarf Galaxy. *Young Scientist.* Vol 8. 52-54. 2018
- Modeled and evaluated the physical consequences of the Primordial Black Hole as Dark Matter hypothesis utilizing computational resources of the Vanderbilt University Department of Physics and Astronomy.

Thesis and Pre-print

Raghavendra Pradyumna Pothukuchi, Mudi Yang, et al. The QUATRO Application Suite: Quantum Computing for Models of Human Cognition. Bhattacharjee Group, Yale.
- Developed quantum random walk on D-Wave quantum annealing system to model the two alternative forced choice decision problem. Submitted for review. [arXiv](#)

A D-Wave Annealing Based Quantum Random Walk Model of Cognition. Bhattacharjee Group, Yale. *Undergraduate Senior Thesis.*
- This work is included in a larger manuscript currently under review.

Fellowships, Awards & Programs

STAQ Quantum Ideas Summer School, Duke University. *Summer 2023*
- Admitted to the Quantum Ideas Summer School at the Duke Pratt School of Engineering.

The Cornell, Maryland, Max Planck Pre-doctoral Research School. *Summer 2022*
- Admitted to summer school led by Cornell, Maryland, and Max Planck faculty at the Max Planck Institute for Software Systems, Saarbrücken, Germany.

YHack. *Winter 2022*
- Developed android COVID resource app with contact tracing, social distancing mapping, and VR social distancing "ruler" Top 5 project finalist. Won 3 awards: Best COVID-19 Related Hack (Citadel), Best Use of Google Cloud (Google), Best Use of Google Cloud - COVID-19 Hackathon Fund (Google).

UCLA Bruins in Genomics (BIG) Research Program. *Summer 2020*
- Selected to conduct fully summer funded undergraduate computational genomics research at UCLA. NSF REU Program.

UCLA Bruins in Genomics Research Excellence Award. *Summer 2020*
- Awarded to exceptional student researchers of the BIG summer program.

Yale College Dean's Research Fellowship. *Summer 2020*
- $1,500 to fund original undergraduate STEM research at Yale.

Pembroke King's Programme. *Summer 2019*
- Admitted to summer program at Pembroke, King's colleges, University of Cambridge.

Davenport College Richter Fellowship. *Summer 2019*
- $1,000 award for Davenport College students seeking to study abroad. Davenport is a residential college at Yale.

Yale College First-Year Summer Research Fellowship. *Summer 2019*
- $4,500 award to fund first year summer undergraduate research in STEM at Yale.

Leadership & Extracurriculars

Co-President of Yale Undergraduate Aerospace Association. *2020-2021*
- Leader of largest on campus engineering club as one of two co-presidents.
- Team lead of High Altitude Balloon project in 2019-20. Received a 2019 NASA Connecticut Space Grant for Student Projects.

Davenport Liaison for Davenport Pops Orchestra. *2019-2022*
- Coordinate grants, performance spaces, and relations between Davenport Pops Orchestra, Davenport College, and Yale.