

Suchetan Dontha

908-514-6648 | suchdon777@gmail.com | <https://www.linkedin.com/in/suchetan-dontha/>

Education

August 2019 - **B.S. University of Illinois at Urbana-Champaign**
December 2021 Mathematics and Computer Science
GPA (estimated): 3.8

Areas of Interest

Largely, the intersection of pure mathematics and theoretical computer science.

Quantum Computing, Algorithmic Topology, Complexity, Machine Learning, Cryptography

Research

January 2020 - **Building a Computer with Colorful Knots**
Present *University of Illinois at Urbana-Champaign (Eric Samperton)*

- Realizing the $\#P$ -Completeness proof of knot colorings by induction
- Proving base cases via SageMath and supercomputers
- Demands knowledge in Algebraic Topology and Complexity

May 2020 - **Privacy Preserving Facial Recognition**
August 2020 *California State Polytechnic Institute, Pomona (Tingting Chen)*

- Worked to build facial recognition model to classify encrypted images
- Achieved through the use of Fully Homomorphic Encryption
- Demanded knowledge from Cryptography and Machine Learning

February 2021 - **Detecting Knottedness via Quantum Computing**
Present *University of Illinois at Urbana-Champaign (Eric Samperton)*

- Determining if the Khovanov Homology for links is QMA
- Finding evidence via PARI/GP and Python on supercomputers
- Demands knowledge in Homological Algebra and Quantum Computing

June 2020 - **Efficient Simulations of 3D Geometrically Local Quantum Circuits**
Present *University of Maryland (QuICS) (Matthew Coudron)*

- Aiming to achieve sub-quasipolynomial time simulation of 3D geometrically local quantum circuits with constant depth
- Demands knowledge in Quantum Computing and Algorithms
- Submitted as poster to QIP 2022

Teaching

- | | |
|--------------------------|--|
| July 2020 -
May 2021 | CS 126 (Software Design Studio) Course Assistant
<i>University of Illinois at Urbana-Champaign</i> <ul style="list-style-type: none">- Held weekly code review for 4-6 students- Graded assignments of students and held office hours- Assisted with course assignment development |
| August 2021 -
Present | CS 242 (Programming Studio) Course Assistant
<i>University of Illinois at Urbana-Champaign</i> <ul style="list-style-type: none">- Holding weekly discussion for 3 students- Grading assignments of students |

Awards

- | | |
|----------|--|
| May 2021 | Josephine Chanler Scholarship
Awarded based on GPA and strength of courses |
|----------|--|