

+1 (213) 476 6063 www.neerajsamtani.me neeraj.j.samtani@gmail.com www.github.com/neerajsamtani www.linkedin.com/in/neerajsamtani

#### **EDUCATION**

University of California, Los Angeles B.S. Computer Science | GPA: 3.77

Expected June '22

#### **WORK EXPERIENCE**

Automated Reasoning Group | Al Researcher June 20 - Present

• Researching Sentential Decision Diagrams (SDDs) which learn from a combination of data and symbolic knowledge. SDDs are used to explain and verify AI Systems.

Honey | SWE Intern (Deferred due to COVID-19) Summer 2020

## At HUM | SWE Intern

July '19 - September '19

- Optimized the asset import workflow into Unreal Engine 4 with C++ and Python, which reduced import time by 8000%.
- Automated virtual house furnishing in Unreal Engine 4 based on room size and user preferences which enabled artists to quickly prototype designs and helped the startup scale its software.

### ESRI | SWE Intern

- Developed plugins in C++ and Bash to provide support for WEBP and PDF formats in ArcGIS using the open-source library GDAL. Wrote user documentation for these plugins.
- Collaborated with a team of interns to write a **Python** script which automated testing and reduced development time by comparing image statistics and verifying support for various file formats.

## **TOP PROJECTS**

DrugDecider | Engineering Manager

- Led a team of 5 software engineers to develop DrugDecider, a mental health website that uses machine learning to predict a patient's treatment response to anti-psychotics (partnered with the UCLA School of Medicine)
- Tools: React, Node, Express, MongoDB, R, and AWS

# Books For A Cause | Independent Project

- Created a website which enables students to trade used textbooks.
- Spearheaded a marketing campaign which led to 450+ users signing up within the first two months.
- Trained four students to maintain and update the website.
- Tools: HTML, CSS, JavaScript, PHP, and MySQL

#### RELEVANT COURSEWORK

Algorithms and Complexity, Operating Systems, Programming Languages, Artificial Intelligence, Computer Graphics, Multivariable Calculus, Discrete Math, Linear Algebra

#### **HONORS AND AWARDS**

Upsilon Pi Epsilon Honor Society, Member UCLA Chapter, Inducted Spring 2020 Dean's Honors List

UCLA, Spring 2019 and Fall 2019

Valedictorian

GEMS Modern Academy, 2018

Runner-Up, Mobile App Competition GEMS-Keita Mobile App Making Competition, 2018

**Euclid Mathematics Contest Medal** 

School Topper and Top 20% Worldwide, Center for Education in Mathematics and Computing, 2018

K.S. Varkey Merit Scholarship GEMS Education, 2016 - 2018

#### LANGUAGES

Python, C, C++, JavaScript, Bash, Lisp

# FRAMEWORKS + **SOFTWARE**

Linux/Unix, Git, React, Node, Express, MongoDB, WebGL, Adobe Creative Cloud

#### **PUBLICATIONS**

**How Would Quantum Computing Impact** the Security of Bitcoin by Enhancing Our Ability to Solve the Elliptic Curve Discrete Logarithm Problem? (August 2018).

Top Ten download list in the Computing Methodology eJournal and CompSciRN: Cyber Attack (Topic).

Link: https://ssrn.com/abstract=3232101

Last Updated: 08-08-2020