# Neeraj Samtani

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## Education

University of California Los Angeles • B.S. Computer Science • **GPA 3.74** Sept 2018 - June 2022

Coursework: Object-Oriented Programming, Algorithms and Complexity, Operating Systems, Database Systems, Programming Languages, Artificial Intelligence, Machine Learning, Computer Graphics, Multivariable Calculus, Discrete Math, Linear Algebra, Real Analysis

## Experience

**Amazon • Incoming Software Engineer Intern** Jun - Sept 2021

**Automated Reasoning Group UCLA • Undergraduate Researcher** Jun - Oct 2020

Implemented example use-cases for Structural Bayesian Networks , which were proposed for learning distributions over highly complex spaces. Advised by Professor Adnan Darwiche, former chairman of the UCLA Computer Science Department.

**AtHUM • Software Engineering Intern** Jun - Sept 2019

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

**Esri • Software Engineering Intern** Jul - Aug 2017

Developed plugins in C++ and Bash to provide support for WEBP and PDF file formats in ArcGIS using the open source library GDAL. Wrote user documentation for these plugins.
Collaborated with a team of interns to write an automated testing script in Python which compared image statistics and verified support for various file formats.

## Projects

**codirector** 2020

Built a website for filmmakers to create and distribute interactive films, similar to Netflix's *Bandersnatch*. Increased accessibility for independent filmmakers by making this software free and open source (competitors charge $500+ per month).
Tools: React and Firebase

**DrugDecider • Engineering Manager** 2019

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

**Books For A Cause** 2018

Created a website which enables students at GEMS Modern Academy to trade used textbooks. Spearheaded a marketing campaign which led to 450+ users signing up within the first 2 months. Trained 4 students to maintain and update the website.
Tools: HTML, CSS, JavaScript, PHP, and MySQL.

## Skills

**Languages**: Python, C, C++, JavaScript, Java, Lisp, OCaml, Bash, HTML/CSS
**Frameworks & Technologies**: Linux/Unix, Git, React, Node, Express, MongoDB, Firebase, AWS, Heroku, WebGL

## Honors & Awards

**Upsilon Pi Epsilon Honor Society, Member**: UCLA Chapter (Inducted Spring 2020)
**Dean's Honors List**: UCLA School of Engineering (Spring 2019 and Fall 2019)
**Valedictorian**: GEMS Modern Academy (2018)
**Top Ten Download List in Computing Methodology eJournal:** How Would Quantum Computing Impact the Security of Bitcoin by Enhancing Our Ability to Solve the Elliptic Curve Discrete Logarithm Problem? (August 2018)
**Runner-up, App Making Competition**: GEMS-Keita Mobile App Making Competition (2018)
**Euclid Mathematics Contest Medal**: School Topper and Top 20% Worldwide, CEMC (2018)
**K.S. Varkey Merit Scholarship**: GEMS Education (2016-2018)