Neeraj Samtani

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Education

University of California Los Angeles • B.S. Computer Science • **GPA 3.77** — 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

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

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

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: 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)