# Sukhveer Singh Karlcut

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#### **EXPERIENCE**

### **Dexterity, Inc.,** Redwood City — *Machine Learning Intern*

April 2021 - September 2021

I worked on the in production Mask–RCNN model used for RGB image segmentation in robot vision. I gained experience building and training machine learning models from image datasets. My focus was speeding up inference time and increasing prediction accuracy by successfully completing a model conversion to TensorRT. The converted model had an inference time speedup of 6x and an inference accuracy increase from 82% to 94%.

## **Cadence Design Systems,** San Jose — Software Engineering Intern

June 2019 - September 2019

I worked on the industry leading Palladium Z1 emulator and future products. My focus was on metric driven memory and performance optimization for a core software module that represented the multi-user system in memory and was responsible for mapping a design to a designated set of resources. I also worked on regression testing and code coverage for developed features, and gained experience working on a multi-million line code base and test driven development. I achieved a 31% decrease in memory usage by converting to dynamic data structures and memory access controls.

## Clarity Wealth Advisors, San Jose — Summer Intern

Summer 2017 and 2018

I managed client portfolios, analyzed stock trends, and determined how to allocate money into different markets. My position also involved research of new technologies affecting the financial sector, such as artificial intelligence and blockchains. I also created the company's website, using the Markdown language, which can be seen at www.claritywa.com.

#### **SKILLS**

Python

C

C++

Java

Gitlab

Keras/Tensorflow

TensorRT

Javascript

Stata

SOL

#### **LANGUAGES**

English, Spanish, Punjabi

#### **EDUCATION**

## **University of California at Santa Cruz**, Santa Cruz — Bachelors of Science

Dean's Honor Student

September 2018 - March 2022

I am currently a senior at UC Santa Cruz, graduating in March of 2022. I am majoring in Computer Science, with a double major in Computational Mathematics, and a minor in Statistics. My GPA is 3.75.

Courses that I have completed are:

- Data Structures in C, Computer Systems and Assembly Language, Algorithms and Abstract Data Types, Intro to Networking, Advanced Programming in C++, Programming Abstractions in Python, Computer Architecture, Artificial Intelligence, Applied Machine Learning, Machine Learning, Computational Models, Analysis of Algorithms, Data Mining, Comparative Programming Languages, Computer Systems Design, Computer Security, Intro to Software Engineering
- Linear Algebra, Multivariable Calculus, Discrete Mathematics,
  Ordinary Differential Equations, Probability and Statistics for
  Engineering, Proofs and Problem Solving, Real Analysis, Intro to
  Number Theory, Advanced Linear Algebra, Statistical and
  Bayesian Inference, Partial Differential Equations

### Monta Vista High School, Cupertino — Diploma

August 2014 - June 2018

• AP Scholar with Distinction

I graduated from Monta Vista High School in June 2018 with a GPA of 4.2.

## HOBBIES

Reading

Music

Soccer

Biking