# Aarush Chaubey | Résumé

## **Education**

#### University of California, Berkeley

Department of Electrical Engineering and Computer Science

August 2024 - Present

B.A. Computer Science

## **Doral College [High School Concurrent]**

4.000 GPA

August 2021 – May 2024

Dual Enrollment

Dual E

Linear Algebra, Multivariable Calculus, Discrete Math, Differential Equations

### Programming Experience:

Java, C++, LATEX, Python (also TensorFlow/Keras), HTML/CSS

# **Select Projects**

# Computer Programming

#### [Internship] United States Army 2024:

- Currently designing a Region-based Convolutional Neural Network(RCNN) to detect race based on facial features
- Distinguishing Northern, Southern, Northeastern, Northwestern Indian faces to aid in fast-paced medical situations

#### [Internship] United States Army 2023:

- Designed a novel neural network to detect missing persons from aerial cameras
- Analyzed efficiency with a dataset of Unmanned Aerial Vehicle (UAV) Forward Looking Infrared (FLIR) images
- Achieved 98% accuracy in person detection

#### **Library Locator Website:**

- Built a website that compares library necessity to current library locations in order to inspire library construction throughout the Miami-Dade area
- Over 70% of Dade County was not covered by libraries, so I donate books to those areas in need
- Nominated for Miami Herald Silver Knights award for this project

# **Select Work/Volunteer Experience**

#### Florida Association of Mu Alpha Theta: Test-writer

May 2023 - Present

- ${\bf \circ}~$  Writing statewide calculus and precalculus tests for  $\sim 500~\text{students}$
- Topics include advanced integration, linear algebra, trigonometry, complex numbers, etc.

#### Florida Students Association of Mathematics: Regional Coordinator

2023 - 2024

- Head of Miami-Dade County operations for FLSAM
- Hosted tryout tests and provided detailed explained problem explanations for students attending competitions at top universities, including Harvard, MIT, Stanford, and Berkeley

#### Math Competition Coach: Doral Academy Preparatory School

2021 - 2024 / 356 Hours

- Coached over 80 students in competitive calculus, precalculus, and geometry
- Students competed in region/state/national Mu Alpha Theta(MAO) and American Mathematics Competitions (AMC 10/12, AIME) tests
- Had students place top first in both team and individual rounds in Mu Alpha Theta National/State competitions
- Doubled the number of school AIME qualifiers to 13