

# Siddharth Nath

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## EDUCATION

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- **University of California Berkeley** San Francisco Bay Area, CA  
*GPA: 3.86 – Bachelors Degree, Computer Science* Aug. 2021 – May. 2025
- **Archbishop Mitty High School** San Jose, CA  
*GPA: 3.99 (4.64 Weighted)* Aug. 2017 – May. 2021

## EXPERIENCE

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- **Berkeley Student Association for Applied Statistics (SAAS)** Berkeley, CA  
*Data Consulting* Sept 2021 - Current
  - **Machine Learning:** Implemented Multi-Armed Bandit algorithms to optimize A/B testing for a marketing consultancy company. Used Upper Confidence Bound and Thompson Sampling algorithms to decrease time spent running inconclusive experiments.
- **EmbedUR** Fremont, CA  
*Machine Learning Intern* Jun 2021 - Aug 2021
  - **Data Science / Data Mining:** Performed data preprocessing to filter outliers, remove invalid data, resample imbalanced data (200:1 majority-to-minority class ratio), and enhance the performance of Machine Learning algorithms. Analyzed and visualized client LAN MAC addresses.
  - **Machine Learning:** Trained Random Forest Classifier Model to predict client support call-ins with a 99.63% accuracy and 85.19% precision. Used K-Means clustering algorithm to cluster call-in data based on relevant features.
- **Cisco** San Jose, CA  
*Software Engineer Intern* Jul 2020 - Aug 2020
  - **Automation Solutions:** Designed automation solutions for Cisco Intersight cloud hosted management platform. Automated the Virtual Media Policy which allows for installing OS on Cisco servers using the KVM console, mounting files to the host from a remote file share, and enabling virtual media encryption.
- **Stanford University Research** Stanford, CA  
*Dr. Wong Lab - Research Intern* May 2020 - Aug 2020
  - **Peptide Sequence Analysis:** Prepared Python algorithms to identify potential T-cell epitopes needed for creating Covid-19 vaccines.
  - **Web Development/Design:** Launched lab website (Dr. Wong Lab) to establish online presence and facilitate collaboration prospects with other researchers.
- **Harvey Mudd College** Remote  
*Research Intern* Jul 2020 - Aug 2020
  - **Linear Algebra:** Learned linear algebra concepts to understand complex machine learning algorithms through Mathematical Methods for ML, a course taught by Harvey Mudd McAlister Professor Weiqing Gu.
  - **Machine Learning:** Applied Natural Language Processing Algorithms (NLTK) to analyze effects of Presidential Speeches on the Stock Market. Used Python Web Scraping to automate extracting speech transcripts from online sources.
- **Stanford University** Stanford, CA  
*Stanford Asian Liver Center - Software Engineer Intern* May 2019 - Aug 2019
  - **Front End Engineering:** Developed the Heptool app using Django that calculates a user's health risks for Hepatitis B and provides treatment recommendations from the World Health Org. (Heptool). Collaborated with front-end engineering/UX team to enhance the user interface and provide visualization tools for patients to understand health risks.
  - **Back End Models:** Implemented a Mathematical Markov Model to calculate a patient's mortality, cirrhosis, and liver cancer risk given factors such as age, gender, and presence of Cirrhosis.
  - **Volunteering:** Raised awareness for Hep. B and addressed the social stigma surrounding the disease through outreach/volunteering.

## PROJECTS

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- **Saucer:** Intelligently recommends users sustainable recipes based on provided ingredients and expiry dates to minimize food waste.
- **Covidualize:** Visualizes the effects of Covid-19 through a database table and an interactive 3-D model of the Earth.
- **TwitterSecurity:** Promotes a positive social media environment by identifying and filtering harmful tweets/messages that perpetuate cyberbullying.

## AWARDS AND HONORS

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- **Script Foundation Innovation Hack of the Year:** Awarded to the winner of DefHacks for building the most innovative solution to a serious global problem. Determined by judges based on impact, creativity, effectiveness, and reusability.
- **USACO Silver Division:** Algorithmic Programming Competition that tests knowledge of data structures, problem solving, and designing efficient algorithms. Placed top 18% of contestants.
- **Geom Hacks Top 20 Award:** Awarded to 20 winners of Geom Hacks for creating an innovative project addressing Covid-19. The award is determined by 5 experts who judge projects based on functionality, originality, and viability.

## LEADERSHIP ACTIVITIES

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- **YMCA Basketball Head Coach:** Planned weekly meetings, taught the fundamentals of basketball, and instilled the YMCA core values of teamwork, responsibility, and respect among players.
- **Elevate the Future Instructor:** Designed web development curriculum and guided 20 high school students to build professional websites for businesses impacted by the Covid-19 pandemic.
- **Teach Seniors Technology Volunteer:** Educated senior citizens about computers through individualized instruction to bridge the gap between seniors and our digital world.

## PROGRAMMING SKILLS

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- **Languages/Skills:** Python, Java, Javascript, HTML, CSS
- **Technologies/Libraries:** Numpy, Matplotlib, Pandas, Scikit-Learn / PySpark MLlib, Firebase, Vue.js, Bootstrap, Git, Github