

# Avantika Ghosh

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## **Education and Training**

**University of California, Berkeley, CA | Dual Degree in Computer Science and Economics | Expected in 05/2023**

**Technical courses:** Structure and Interpretation of Computer Programs (Python) | Foundations of Data Science | Language and Linguistics | Data Connector Course (Economic Models) | Discrete Mathematics and Probability | Designing Information Devices and Systems

**Skills** C++, Python, Java, Javascript, Lisp, SQL, Git, Apache Spark and the Spark ecosystem, including Spark RDD, Spark SQL, Spark MLlib, and Spark Streaming, HDFS, Sqoop, Flume, Spark GraphC, and Kafka.

## **Work Experience**

**Naval Postgraduate School (NPS), Monterey, CA**

***Research Intern***

**2020**

- Currently using the IBM Blockchain Platform to create a system for NPS that tracks food shipment details (condition, supplies, inventory, etc) during transportation and aircraft maintenance log integrity.
- Receiving \$7000 stipend from NPS for my research.

***Science and Engineering Intern***

**2018-2019**

- Benchmarked ML algorithms capacity to process different transponder attributes of a 10,000 military aircraft dataset to identify anomalous behavior to seek potential terrorist/surveillance activity
- Created models of the K-Means Clustering, Density-based Spatial Applications with Noise, and Linear Regression
- Presented research findings at the Summer Research Symposium at CSU Monterey Bay, CA. Received \$3000 stipend from NPS and \$1000 research grant from Stanford AI4ALL

**High School AI Lab (HAIL), Stanford University, CA**

**2017**

***Research Volunteer***

- Aided graduate students at Stanford University in data testing on a research project to improve the accuracy and early detection of lung cancer
- Created a model to reduce the number of false Positives (FPs) using black circular algorithm for feature extraction and genetic algorithm (GA) based clustering using the nodules on medical images like CT and MRI scans.

**AI4ALL**

**2016**

***Researcher***

- Improved hygiene in hospitals using computer vision techniques by programming cameras to filter images of hands of hospital personnel between image channels to identify germs.

## **Activities and Honors**

**Internal Vice President Committee, Engineering Student Council (UC Berkeley)**

**2020**

- Working toward addressing equity and inclusion of all STEM majors at events hosted by the Engineering Student Council and increasing research opportunities for Berkeley students within the College of Engineering

**NCWIT Award for Aspirations in Computing (AiC) | San Francisco Bay Area Winner**

**2017**

- Awarded for achievements in computing, proven leadership ability, and academic performance

**First Place in Hack for Social Impact Summit (Hosted by Blueprint)**

**2019**

**Member, Women in Science and Engineering Program (UC Berkeley Chapter)**

**2019-2020**