

# Anish Saha

Software Developer | Student @ UC Berkeley

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## PROFILE

Graduating senior double majoring in Applied Mathematics and Data Science. Ambitious and versatile developer seeking a full-time software engineering role involving data-driven, impactful projects.

## EDUCATION

### University of California, Berkeley

Berkeley, CA • 2015 - 2019 • GPA: 3.10

B.A. Applied Mathematics

B.A. Data Science

## COURSEWORK

- CS 61A – Computer Program Structure and Interpretation
- CS 61B – Data Structures
- CS 61C – Computer Architecture
- CS 70 – Discrete Mathematics and Probability Theory
- CS C100 – Principles and Techniques of Data Science
- CS C131 – Computational Models of Cognition and Neural Networks
- CS 160 – UI Design and Development
- CS 161 – Computer Security
- CS 188 – Introduction to Artificial Intelligence
- CS 198 – iOS Development
- STAT 131 – Introduction to Probability and Statistics for Data Science
- STAT 133 – Concepts in Computing Data
- STAT 142 – Introduction to Data Analytics and Machine Learning
- MATH 104 – Introduction to Analysis
- MATH 110 – Linear Algebra
- MATH 113 – Abstract Algebra
- MATH 128A – Numerical Analysis
- MATH 198 – Introduction to MATLAB

## TECHNICAL SKILLS

### PROGRAMMING LANGUAGES

Python, Javascript, R, Swift, Objective-C, Java, MATLAB, C / C++, Bash / Shell, HTML, CSS, PHP, GoLang

### FRAMEWORKS & TECHNOLOGIES

Git, React.js, Node.js, Django, Pandas, Numpy, Scikit-learn, Apache Spark, Scipy, TensorFlow, Google Maps, Google OCR, Google Cloud Natural Language API, PRAW, Keras, Matplotlib, Tesseract, Tweepy, BeautifulSoup, GraphQL, Google Firebase, MySQL / NoSQL, and more

### SOFTWARE TOOLS

Figma, Adobe Spark, XCode, Android Studio, Sketch, Tableau, NewRelic, Convia, Adobe Photoshop, Anaconda, Jupyter iPython Notebooks, Unity

## EXPERIENCE

### AT&T INC.

**Software Engineering Intern** • May 2018 - Aug 2018

- Software developer for the Open Video Innovation Team
- Developed a debugging platform in a Bluetooth P2P feature for communication between Android, tvOS, and iOS devices
- Developed stand-alone iOS application that uses the Google Cloud Natural Language Sentiment Analysis API and the NLTK library to analyze scraped data from Twitter, Reddit, Facebook, Play Store, and the App Store and graphically represent daily customer sentiment and monthly trends with DirecTV NOW
- Created scripts to query, parse, cluster, and analyze terabytes of session data from millions of DirecTV NOW users; utilized machine learning algorithms including DBSCAN, random forest regression, and cross validation to determine customer satisfaction trends over time and identify features associated with positive and negative user experiences

### UC BERKELEY OFFICE OF PLANNING AND ANALYSIS

**Undergraduate Researcher** • Jan 2018 - Aug 2018

- Helped build a web application to analyze data on student majors and classes for over 6000 graduating seniors
- Configured database to store precomputed clusters by running the T-SNE algorithm on student data and reducing runtime / server load for the dimensionality reduction process

### QUANT FIVE ENGINEERING

**Software Engineering Intern** • May 2017 - Aug 2017

- Full-Stack developer for a team developing Safesign, a web application for securely sharing and e-signing documents
- Backend: Involved in development of 2FA, Document Parsing, Database Management, and Biometric Verification
- Frontend: Involved in design and development of Profile Creation Workflow, Email Verification, and more

### INVENTION CORPS OF BERKELEY

**Finance Chair** • Jan 2017 - Aug 2017

- Helped design and develop hygiene initiative solution web application for over 56,000 schools in Tamil Nadu, India
- Created budget and received over \$10,000 in total funding from Stanford School of Design Fellowship and the ASUC

## PROJECTS

### N-GRAM LANGUAGE LEARNER • Python • 2018

- Developed a natural language processing algorithm
- Utilizes statistical inference and web scraping to generate, a set of ( mostly ) grammatically correct sentences
- Algorithm takes in the online .txt version of the famous book "Pride and Prejudice" as training data to learn language rules

### PROJECT: FIREWALL • Python • 2017

- Developed a utility to bypass the Great Firewall of China
- Supports tracing the route of sent packets, as well as sending / receiving packets of inaccessible HTTP requests
- Bypasses censorship ( RST packets ) and allows access to websites that are otherwise censored, such as Google

### SNAPCHAT 2.0 • Swift, Objective-C • 2016

- Built a basic iOS SnapChat emulator from scratch using Swift and Firebase with a few personal twists
- Supports sending, receiving, and uploading snaps using Camera Roll or built-in device camera