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, CoreData PRAW, Keras, Matplotlib, Multiprocessing, Tweepy, BeautifulSoup, GraphQL, Google Firebase, MySQL / NoSQL, and more

SOFTWARE TOOLS

Figma, Adobe Spark, XCode, Android Studio, Sketch, Tableau, Amazon AWS, NewRelic, Conviva, Adobe Photoshop, Anaconda, Jupyter Notebooks, Unity

EXPERIENCE

AT&T INC.

Software Engineering Intern • May 2018 - Aug 2018

- Software developer for the Open Video Innovation Team
- Developed iOS application that uses the Google Cloud Natural Language API and the NLTK library to standardize and perform sentiment analysis on scraped text data from Twitter, Reddit, Facebook, and App Store reviews, then graphically represent daily / monthly customer sentiment trends on DirecTV NOW
- Created scripts to query, parse, cluster, and analyze terabytes of DirecTV NOW event-level user session data; utilized machine learning algorithms (DBSCAN, Random Forest Regression, and more) to understand customer satisfaction trends and identify features associated with positive / negative user experiences
- Implemented a modified version of the Word2Vec algorithm, iteratively training a neural network on an industry-specific corpus to determine word associations for key product terms

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, Account / Database Management, and Biometric Verification
- Frontend: Involved in development of the Profile Creation Workflow, Email Verification, and Mobile Compatibility

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

- Utilized an ensemble of natural language processing algorithms that leverage web scraping, methods of statistical inference, and syntax trees to generate grammatically correct sentences
- Algorithm takes in text data from online versions of books such as *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 minimalistic iOS SnapChat emulator from scratch
- Supports sending, receiving, and saving snaps by accessing the Photos application as well as the device's built-in camera
- Includes account management & group messaging functionality