

Ahan Mukhopadhyay

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Education

University of California, San Diego

BS in Computer Science GPA: 3.75

La Jolla, CA

Expected Graduation: June 2020

Experience

Viasat

Carlsbad, CA

Software Engineering Intern

June 2018 – Sep 2018

- Designed a Zero Touch Provisioning system to automate the deployment of the new ground optical satellite network
- Implemented asynchronous docker containers to orchestrate long workflow tasks through REST APIs
- Created a VPN concentrator that used the daemon charon to detect ipsec tunnel connections
- Won the intern hackathon category: "Capacity to Deliver The Unexpected" for a Bandwidth and CPU Analysis tool
- **Tech Used:** Python, Bash-shell, Flask, Celery, Redis, Docker, Kubernetes, PostgreSQL

Swish

Remote

Software Development Intern

June 2017 – Aug 2017

- Implemented an instantaneous real-estate listing search with price, location, beds filters and sorts
- Improved concurrency in the room8 (iOS app) server for 10,000 active users by parallelizing user matching
- Created Rest APIs to interface with database and expand backend server to both mobile and web apps
- **Tech Used:** NodeJs, ReactJs, Preact, MeteorJS, KeystoneJS, MongoDB

Yobi Technologies

Gurgaon, India

Software Development Intern

Apr 2016 – Aug 2016

- Developed an extreme weather alert tool for use by the Government in the NE region of India
- Created a web app that collected, visualized and analyzed data from 200+ IoT weather stations and identified at-risk areas
- Designed a MVP low-cost CCTV vehicle-counting program to couple with pollution sensors at an intersection
- **Tech Used:** Python, Flask, MongoDB, Plotly, opencv, Raspi

Projects

Chessbox

Jan 2018 – May 2018

- A Chess AI you can play against on a physical acrylic LED chess-board
- Implemented a custom Chess Engine which obtained a 2100 elo rating on Arena
- Used alpha-beta pruning, minimax and iterative deepening for best move search
- Chessboard uses IR sensors to detect piece movement and player turns
- **Tech Used:** C/C++, Arduino, IR sensors, Alpha-beta pruning, Minimax search, Decision trees

ClickBlock - Social Hack Winner

HackUCI 2017

- Google Chrome Plugin for Facebook newsfeed that automatically checks for clickbait
- Utilized key-word extraction to make clickbait titles more accurate for the article's content
- Used an natural-language processing summarizer that generated a 10-line summary on hover
- Implemented a logistic regression classifier that trained on 10,000 articles with 89% accuracy test accuracy
- **Tech Used:** Python, sci-kit learn, flask, beautiful-soup

Campaign - Twitter Sponsor Prize Winner

AngelHack 2016

- A platform that analyzed the perception of the 2016 US presidential candidates
- Analyzed 50,000 tweets since Jan 2016 using an ML API to score each presidential candidate's overall sentiment
- Discovered keywords associated with each candidate using natural language processing API
- Visualized long term and live short-term perception of each candidate by graphing sentiments for a collection of tweets
- **Tech Used:** Python, Flask, HPE API, Twitter REST and Stream API, Plotly

Leadership

UCSD CSE Department

La Jolla, CA

Tutor

Sept 2017 - Mar 2018

- Tutored Intro to OOP paradigm (CSE 11) and Systems Programming (CSE 30) for Professor Rick Ord
- Graded programming assignments, quizzes and exams and hosted lab hours and discussion sections for students

UCSD Office of Sustainability

La Jolla, CA

Student Fellow

Jan 2018 - Jun 2018

- Won the UC MyLastTrash grant for \$1000 to develop a Green Events Protocol at UC San Diego
- Worked closely with Center for Student Involvement and Student Government to run pilot green events