HARRIS BEG

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EDUCATION

California Institute of Technology   September 2020 - June 2024
B.S. in Computer Science

TECHNICAL STRENGTHS

Computer Languages	Python, Java, NodeJS, JS, HTML, CSS, SASS, Go
Tools	Android SDK, Git, ReactJS, ExpressJS, Django, MongoDB, Flask, Tensorflow

WORK EXPERIENCE

Grabify   November 2018 - Present
Frontend Web Developer

- Used PHP, JS, HTML, and Materialize (a CSS framework) to construct an IP-logging website, grabify.link; Grabify generates 700,000+ monthly users and has been featured on MTV's Catfish show.
- Grabify has over 90,000,000 total logs to date, over 10,000,000 links, and 800,000 registered users.

MySocialHub   November 2017 - December 2018
Frontend Web Developer

- Relayed fixes while also reporting bugs, all through an interconnected Bitbucket repository.
- Made use of Laravel and its core components, including PHP, JS, HTML, SASS, and MySQL to help develop a car community platform, including websites like salomondrin.com, which has over 100,000 users.
- Became well versed in the different aspects of Git workflows, including pull requests, branch conflict resolution, and the designation of tasks through JIRA and Atlassian.

Super Hack   June 2019 - Present
President

- Organized San Diego's premier high-school 12-hour hackathon and raised over $5,250 in funding + $10,000 in prizes. Website: superhack.org.
- Constructed a team of five to organize our hackathon (over 160 signups) and acquired sponsors, contacted school faculty, and communicated between divisions to set up event.
- Got event featured on Del Mar Times, Rancho Santa Fe Review, and San Diego Reader to increase registrants. Acquired sponsors including GitHub, General Atomics, ResMed, San Diego Data Science Alliance, and surcle.io.

Hibotics   August 2019 - Present
Software Developer

- Developed a websocket communication protocol to relay movements messages from a website to a Hibotics ceiling robot.
- Worked in a team of three active developers to further advance a Learning Management System based in Django and utilizing MongoDB and Cloudflare video streaming.
- Generated sample ultrasonic data for machine-learning classifier using matplotlib and numpy.
- Aided in development of hand tracking software and multiprocessing analysis to create the fastest video stream possible.

OpptIn   July 2019 - Present
Android Developer

· Worked on a decentralized alternative to typical Internet groups (e.g. chatting apps, businesses) through Android Studio and a REST API.

Hydrosmart Technologies
Android Developer

February 2018 - April 2018

· Remodeled app infrastructure to be based in HTML, CSS, and JS to fit contractor's design constraints.
· Communicated with data from MySQL backend to develop an app through Appery that displays pipeline pressure data.

University of California, San Diego - Center for Energy
Intern

June 2017 - August 2017

· Created Python scripts through the use of Jupyter Notebooks and libraries including numpy, matplotlib, Canny Edge Detection, and OpenCV to detect the sun's position.
· Developed on a BeagleBone platform to try and predict the position of the sun, theoretically applied to solar panels such as those that help power the University of California, San Diego.
· Used machine learning and optical adjustments as well as optical filters to best determine the conditions by which the sun can most easily be tracked.

Team 3128: The Aluminum Narwhals
Head of Submissions

April 2017 - September 2018

· Prepared grant applications and awards to be sent through to FIRST's various scholarships and prizes.
· Mentored incoming students in the realm of Submissions and actively communicated with the Business division to further promote outreach sectors, such as at our local elementary school, Solana Ranch Elementary.

Hack Club
Chapter President

March 2019 - Present

· Created and led Canyon Crest Academy's local Hack Club chapter, which introduces programming through the lens of making. Read more here: https://hackclub.com/philosophy.
· Introduced students to their first hackathons; taught Python; instilled fundamental theorems such as Monte Carlo algorithms and Markov Chains to create projects.
· Developed various webapps and scripts including: a fake tweet generator using Markov Chains, a machine-learning based website, an app that classifies baguettes, tackled programming challenges.

PROJECTS

skinCAM
Founder

February 2018 - Present

· Employed a Tensorflow, Python, and Firebase-based backend in conjunction with an application developed with Android Studio to identify skin diseases. 95% accuracy over a training set of thousands of images (taken from DermNetNZ through a web scraper).
· "skinCAM" is currently on Play Store, and its technology is also patent-pending (62/652,525).
· Won first prize at Greater San Diego Science & Engineering Fair, as well as over $2000 in awards.

Smartify

July 2019 - Present

· Through Django, the Spotify API, and network techniques, Smartify generates playlists in an order of similarity.
· Smartify has over 90,000 active users; featured among 0.0005% of developers on Repl.it; App of the Week; presented to the Founder of Repl.it.

Hackathons

November 2019 - Present

· Developed SnapNotes during Cutie Hack 2019, won Student's Choice and Best Use of .XYZ Domain.
· Created CarBazaar during Rose Hack 2020, won Best Domain registered with Domain.com.
· Hacked during Citrus Hack 2020 and won fourth place out of over 200 registrants.