

HARRIS BEG

harris@caltech.edu ◇ harrisbeg.com ◇ linkedin.com/in/~harris ◇ github.com/hbg

EDUCATION

California Institute of Technology (Caltech)

September 2020 - Present

Bachelor of Science in Computer Science, Minor in Information & Data Science

Programming Languages

Python, Java, C, C++, C#, JS, Go

Web Development

Django, Flask, React, Express, Javascript,
Node.js, Laravel, PHP

Machine Learning / Data

TensorFlow, OpenCV, PIL, matplotlib,
numpy, scipy

EXPERIENCE

Stanford Magnetic Resonance Systems Research Laboratory

June 2021 -

Incoming Research Intern

Grabify

November 2018 - Present

Co-Developer

- Grabify has over **150,000,000** total logs to date, **10,000,000+** user-generated links, and **800,000** registered users.
- Worked in a team of 3 to initiate a new design phase of Grabify & suggest/implement new features, such as invisible Imgur links.
- 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 three times.

MySocialHub

November 2017 - December 2018

Frontend Engineer

- Made use of Laravel and its core components, including PHP, JS, HTML, SASS, and MySQL to develop a car community platform, including websites like salomondrin.com, which has **100,000+** users. Used by YouTubers with over **1,000,000** subscribers.
- Relayed fixes while also reporting bugs, all through an interconnected Bitbucket repository, and became well-versed in the different aspects of Git workflows as well as JIRA and Atlassian.

Super Hack

June 2019 - June 2020

President

- Orchestrated San Diego's premier 12-hour high-school hackathon by securing over **\$5,250** in funding & **\$10,000** in prizes.
- Assembled and led a team of five to organize our hackathon (over **400 signups**, making it the most popular high-school hackathon in Southern California) and acquired sponsors, contacted school faculty, and communicated between divisions to set up 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 BrainCorp.

Hibotics

August 2019 - June 2020

Software Engineering Intern

- Developed a websocket communication protocol to relay movement messages from a website to a Hibotics ceiling traversal robot. Applications include intruder detection, bipedal tracking, and an educational robotic platform. **Patent-pending technology.**
- Generated sample ultrasonic data for CNN using Python, matplotlib, and numpy for use in a primitive 3D space classifier.
- Created hand tracking software and utilized multiprocessing analysis to create the lowest latency video stream to robot response interaction possible.

University of California, San Diego - Center for Energy Research

June 2017 - August 2017

Intern

- Created Python scripts through the use of Jupyter Notebooks and libraries including numpy, matplotlib, Canny Edge Detection, and OpenCV in synchronization with a BeagleBone unit to detect the sun's position for the use of solar panels.

PROJECTS

skinCAM

November 2017 - 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 custom training set of thousands of images (taken from DermNetNZ through a web scraper). "skinCAM" is currently on Play Store, and its technology was the subject of a **provisional patent (62/652,525)**.
- Won first prize at Greater San Diego Science & Engineering Fair (ISEF Affiliate), as well as over **\$2000** in awards {**IEEE Professional Society Award, Kaiser Permanente Grand Award, Sigma Xi Award, California State Science & Engineering Science Fair Qualifier**}.