David Hacker

☎ +1 (805) 368-5071 • ✉ dmhacker.cs@gmail.com • 🌐 dmhacker.github.io

Work Experience

Medspace **La Jolla**
Software Engineering Intern *Oct 2017–Present*
- Developed a tester application using Xamarin Forms that tracked team member locations
- Designed a patient-to-nurse matching algorithm that helped net the company a contract with ST Engineering

Blinks **Westlake Village**
Full Stack Developer *Aug 2016–Jan 2017*
- Added multi-threading to Blink's Android app to improve performance when tracking Eddystone beacons
- Created a backend for Blink's iOS sticker subscription service using Heroku, mLab, and Amazon S3
- Designed a corresponding admin panel using Materialize so that artists could add stickers to the site

IndieU **Westlake Village**
Full Stack Developer *Mar 2016–Aug 2016*
- Redesigned IndieU's website and improved site SEO, driving traffic up by nearly 20%
- Improved their music streamer by optimizing song file delivery
- Fixed issues with their onboarding process, allowing users to save their profile and enter information later

Education

Academic Qualifications

University of California San Diego **La Jolla**
B.S. Computer Science, 4.0 *2017–2021*

Notable Projects

○ **Data Analytics for The Triton:** *Python, Flask, Bokeh, Pandas, Heroku*
- Put in charge of analyzing Facebook viewing data for The Triton newspaper
- Determined ideal content types, headline formats, and times to post articles using machine learning
- Oversaw a quick rise in readership in comparison to other university newspapers

○ **Product Review Rater:** *Python, Gensim, Keras, Flask*
- Developed machine learning algorithm to convert product reviews to ratings on a scale from 0 to 5
- Webscraped millions of Amazon reviews as training data for the algorithm

○ **Alexa YouTube Skill:** *NodeJS, AWS Lambda, Heroku, FFmpeg*
- Created a skill that lets Amazon Alexa devices play audio from YouTube videos
- Downloaded over 500 times and has over 40 stars on GitHub
- Reviewed by the German tech channel Venix, which has over 10,000 subscribers

○ **Photorealistic Rendering Engine:** *Java, Swing*
- Created ray tracer that can show light refraction and reflection
- Detected ray-object collisions quickly using a k-dimensional tree structure
- Ran several threads in parallel to to speed up image generation

Technical Skills

○ **Languages:** Java, Python, JavaScript, C++, C#, SQL, LaTeX

○ **Frameworks:** MEAN stack, Flask, Firebase, React Native, Xamarin, Materialize, Three.js