

David Hacker

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Work Experience

- **Medspace** **La Jolla**
Oct 2017–Present
 - *Software Engineering Intern*
 - Developed a tester application using Xamarin Forms that tracked team member locations
 - Designed a patient-to-nurse matching algorithm that helped secure funding for the company
- **Blinks** **Westlake Village**
Aug 2016–Jan 2017
 - *Full Stack Developer*
 - 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**
Mar 2016–Aug 2016
 - *Full Stack Developer*
 - 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**
2017–2021
 - *B.S. Computer Science, 4.0*

Notable Projects.....

- **Data Analytics for The Triton:** *Python, Flask, Bokeh, Pandas, Heroku*
 - Spearheaded the analytics platform for The Triton newspaper
 - Helped editors & writers evaluate their performance by displaying readership metrics in a clean, understandable manner
 - Determined ideal content types, headline formats, and times to post articles using machine learning
- **Product Review Rater:** *Python, Gensim, Keras, Flask*
 - Developed machine learning algorithm to convert product reviews to ratings on a scale from 0 to 5
 - Webscrapped 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 a 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 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