

# David HACKER

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## EDUCATION

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JUNE 2021 B.S. in COMPUTER SCIENCE  
University of California, San Diego

## PROFESSIONAL EXPERIENCE

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| SEPT 2017 – CURRENT   | <b>Web Developer Intern at EDUCATIONAL VISION TECHNOLOGIES</b><br>Worked on UI/UX design and video delivery optimization for Educational Vision Technologies' UCSD pilot program, which was used in Professor Eggers' Math 20A class.   |
| JUNE 2017 – SEPT 2017 | <b>Application Developer at MYGOLFFAVES</b><br>Used React Native to create iOS and Android apps for MyGolfFaves, a golfing discounts company. Directed production of the backend API.   |
| JULY 2016 – JAN 2017  | <b>Full Stack Developer at BLINKS</b><br>Improved the resource demands and efficiency of Blink's Android app. Created a backend to support Blink's iOS sticker subscription service using the MEAN stack, mLab, Amazon S3 and Cloudfront, and designed a corresponding admin panel. |
| MAR 2016 – AUG 2016   | <b>Full Stack Developer at INDIEU</b><br>Redesigned the website for IndieU, a music streaming service for college students, involving numerous layout changes. Required knowledge of the MEAN stack and familiarity with Amazon's EC2 platform.                                     |

## PROJECTS

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| SUMMER 2017 | <b>Alexa YouTube Skill</b> <i>NodeJS, AWS Lambda, Heroku, FFmpeg</i><br>An unpublished skill that lets Amazon Alexa devices play audio from YouTube videos.  |
| SUMMER 2016 | <b>Text Compression Experiments</b> <i>Python</i><br>Developed custom compression algorithm combining existing designs: Burrows-Wheeler transform, move-to-front transform, run-length encoding, Huffman encoding.   |
| SPRING 2016 | <b>Photorealistic Rendering Engine</b> <i>Java, Swing</i><br>Ray tracer with configurable options for a variety of features: vertex normal interpolation, Phong shading, ray reflection & transmission, balanced k-d tree generation, camera rotation, and anti-aliasing |

## HONORS & AWARDS

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| AUG 2017  | Eagle Scout Award                                      |
| APR 2017  | 1st Place: Startup Weekend Conejo Valley 2017          |
| MAR 2017  | Honorable Mention: SIAM M3 Challenge (top 8% of teams) |
| SEPT 2016 | National Merit Finalist                                |
| JAN 2016  | 3rd Place: MIT Zero Robotics 2015                      |

## COMPUTER SKILLS

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Languages: Java, Python, JavaScript, C++, HTML, CSS,  $\text{\LaTeX}$   
Frameworks: MEAN stack, Flask, Firebase, React Native, Materialize, Bootstrap