# **BREKKE ANDREW GREEN**

# Software Engineer | Full-Stack Engineer | Backend Engineer

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# **SUMMARY**

I am a highly-skilled software engineer with over three years of experience, including a tenure as a research engineer. I have a strong aptitude for learning new skills, a curious mindset and a successful track record of delivering innovative solutions that can improve performance by up to 50%.

## **EXPERIENCE**

### Software Engineer

## **Optimal Dynamics**

**=** 09/2021 - 12/2022 New York, NY

- Developed custom Python integrations for 9+ customers, feeding millions of data points into Al Engines
- Refactored Python codebase to implement concurrency and improve caching strategies, cutting execution time by over 50% and reducing turnaround from weeks to hours
- Designed first customer-facing integration REST API for live customer data feed through user story mapping sessions
- Established a weekly engineering book club and devised guidelines for promoting best practices in code review

#### Research Engineer

# Katmai Government Services (U.S. Army Aeromedical Research Lab)

**=** 03/2019 - 12/2020 Fort Rucker, AL

- Implemented a research division coding repository complete with coding best practices for the Musculoskeletal Injury Prevention and Protection
- Analyzed, quantified and modeled collected data utilizing principles of statistics, linear algebra and calculus
- Applied scientific, engineering and medical field principles to successfully meet U.S. Army and private sector institutions research goals
- Created comprehensive Standard Operating Procedures (SOPs) for data instrumentation and collection and led instructional sessions

# Graduate Research and Teaching Assistant, Biomechanics Laboratory

#### **Pennsylvania State University**

- Conducted research using exoskeletons and exotendons to investigate the impacts of modifying human morphology
- Designed and fabricated lower limb locomotive exoskeleton using metal and carbon fiber components
- Taught undergraduate biomechanics and kinesiology course sections, each with 25 students, and mentored laboratory interns

#### **PASSIONS**

<u> </u>	Bouldering	ø'	Guitar
×	Running	0	Landscape and astro photography

## **TECHNOLOGIES**

Python Javaso		ascript	Go	Dja	Django	
Ruby on Rails D		Docker	A	WS	SQL	
Redis Artificial Intelligence (AI) Git						
Cloud Co	ng Rea	ct	Node.js			
Data Eng	ineerin	ıg				

## **OPEN-SOURCE PROJECTS**

#### Disarray

@ github/aweil13/Disarray

Multiplayer online Boggle Game built with a retro styling. Developed using Socket.IO to connect various players to a game server.

Technology used: MongoDB, Express.js, React, Redux, Node.js, Socket.IO, HTML, CSS, Heroku

#### DSLR U Sure

∂ github/Brekke-Green/dslr\_u\_sure

All-in-one learning tool and game for understanding how camera controls (e.g., aperture, shutter speed, and ISO) work in manual mode.

## **EDUCATION**

Software Engineering Bootcamp App Academy

**ii** 12/2020 - 04/2021

Bachelor of Science in Kinesiology, Movement Science

Pennsylvania State University

**=** 08/2011 - 08/2015

# **LANGUAGES**

# Norwegian



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