

Brekke Green

Software Engineer | Data Engineer | Backend Software Developer

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EXPERIENCE

Software Engineer

Feb 2024 - Present

Elfur, New York, NY

- Build and maintain full-stack web application with JavaScript, React, MongoDB, AWS, and AI technologies
- Launch Chrome extension with backend storage for tracking and visualizing user interactions
- Document and thoroughly test new and legacy codebases

Lead Coding Instructor

Dec 2023 - Present

The Coding Space, New York, NY

- Provide personalized feedback and support to students, offering one-on-one assistance with coding assignments, debugging techniques, and portfolio development to enhance their learning experience and skill proficiency
- Develop and deliver interactive coding lessons and workshops focusing on fundamental programming concepts, algorithmic problem-solving, and software development methodologies
- Spearhead the development and delivery of comprehensive coding courses, encompassing languages such as Python, JavaScript, HTML/CSS, and Scratch, tailored to diverse learner backgrounds and skill levels

Software Engineer

Sep 2021 - Dec 2022

Optimal Dynamics, New York, NY

- Developed custom Python integrations for 9+ customers, feeding millions of data points into AI Engines
- Refactored Python codebase to implement concurrency and improve Redis caching strategies, cutting execution time by over 50% and reducing turnaround from weeks to hours
- Designed first customer-facing integration REST API with Python/Django 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
- Diagnose and troubleshoot technical issues, utilizing comprehensive knowledge of data product architecture to identify root causes and implement solutions

Research Engineer

Mar 2019 - Dec 2020

Katmai Government Services, Fort Novosel, AL

- Implemented a research division coding repository complete with coding best practices for the Musculoskeletal Injury Prevention and Protection Team at U.S. Army Aeromedical Research Laboratory
- 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 with Vicon motion capture system, EMG and instrumented treadmills

Graduate Research Assistant

Aug 2015 - May 2018

Penn State University, University Park, PA

- 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
- Conducted research grade data collection and instruction with motion capture, EMG, VO₂, and force analysis systems

EDUCATION

Full-time Software Engineering Bootcamp

Dec 2020 - Apr 2021

App Academy, New York, NY

Bachelor of Science (B.S.) - Kinesiology

Aug 2011 - Aug 2015

Penn State University, University Park, PA

SKILLS

Python, Javascript, Go, Git, AWS, Docker, SQL, Node.js, Redis, Django, HTML, CSS, React, Ruby on Rails, Jira