Brekke Green

Software Engineer | Data Engineer | Backend Software Developer

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EXPERIENCE

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
- Collaborate with fellow instructors and instructional designers to refine curriculum content and teaching methodologies, incorporating feedback from student evaluations and industry trends to optimize course effectiveness and relevance
- Maintain up-to-date knowledge of programming languages, tools, and technologies through continuous learning and professional development activities, staying abreast of industry trends and best practices to enhance teaching effectiveness and student outcomes
- 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

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
- Taught undergraduate biomechanics and kinesiology course sections, each with 25 students, and mentored laboratory interns

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, R, MATLAB

VOLUNTEER

Community Clean Up   Jul 2023 - Present

Parley for the Oceans