David McVicar

AI and ML Application Development Expert

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Skills

Expertise in: Python, Airflow, PyTorch, Dask, Spark (Pyspark), Django, Qubole, Java, HTML/CSS, JavaScript, TypeScript, Node.js, SQL, UNIX Scripting, AWS Services, Kubernetes, Helm, Helmfile, Kustomize, Docker, Jenkins, ArgoCD, JSON API, STAC API, Git, GitHub, GitLab, Technical Interviewing, Code Review, Agile, Computer Hardware, Software Design

Experience with: ClearML, React, C/C++, Terraform, Rust, Android, Go, Kotlin, Ruby, Rails, Ember.js, Angular.js, D3.js

Employment

KeenSP (Remote) – Founder and Head of Engineering, *September 2024 - Present*
- Founded Keen Software Platforms, a company that specializes in bringing app ideas to life for early stage start-ups.
- Lead the engineering effort of an early-stage startup. Similar in function to a Founding Engineer.
- Personally developed app prototypes and features to enable successful demos and customer pilots.
- Provided guidance to the client regarding technical direction, user experience, security, personnel, and overall design of their app.

BlackSky (Remote) – Staff Machine Learning Operations Engineer, *January 2021 – July 2024*
- Provided software design and DevOps support on a core project to identify construction sites in satellite imagery using segmentation models at scale.
- Authored a STAC imagery ETL engine to create time-series distributed "data cubes" of imagery using Dask, for use in model training and inference processes.
- Developed a set of CloudFormation Templates and Helm Charts to bootstrap several Kubernetes environments containing a suite of machine learning applications which enabled an economical and scalable machine learning workflow for data scientists.
- Designed a PostGIS PostgreSQL database to store millions of annotations, with associated scripts to efficiently export several thousands of them to stakeholders.

Ibotta (Denver, CO) – Senior Software Engineer, *March 2020 – January 2021*
- Made core contributions to several microservices related to building Audiences for use in the Ibotta app.
- Authored several tools using Python and Airflow for use in deploying targeted coupons based on data-science-driven models.

SocialCode (Washington, DC - Remote) – Senior Software Engineer, *August 2016 – March 2020*
- Engineered efficient Python API endpoints using Django REST Framework JSON API that triggered ETL workflows, performed high-volume aggregate queries, and supported a web application front end.
- Pioneered the use of Airflow through prototypes, facilitating learning sessions, authoring company-specific plugins, and developing a Docker-based Airflow deployment system in Amazon ECS. Airflow became the de-facto job scheduling tool across the company through these efforts.
- Designed and developed a third-party data integration feature responsible for hundreds of thousands of dollars in revenue for SocialCode.

Karat (Remote) – Interview Engineer, *March 2019 – March 2020*
- Conducted freelance coding interviews with a focus on assessing the foundational coding skills of candidates.
- Authored detailed write-ups that offered an objective and accurate assessment of candidates' performance.

Education

James Madison University, *2011 – 2015,* Harrisonburg, VA
- Bachelor of Science - Computer Science, *Major GPA: 3.6*