Mike Schock

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Professional Experience

Senior Software Engineer (AI/ML Specialist) **May 2025 - Present**
Coblrshop **Remote (Part-Time Contractor)**

- Support the Chief Technology Officer (CTO) in building foundational infrastructure and executing business-critical features
- Contribute to the design and development of software components, architecture decisions, and internal tooling
- Create proof-of-concept (PoC) solutions to validate technical feasibility for upcoming product initiatives
- Provide AI/ML technical expertise and develop proof-of-concept solutions for artificial intelligence and machine learning features and integrations
- Participate in technical planning, regular engineering syncs, and code reviews to ensure high-quality execution and alignment with the product roadmap
- Document key implementation decisions and engineering work for team knowledge sharing

Founding Engineer **Jan. 2025 - Apr. 2025**
ArchiLabs **San Francisco, CA (Hybrid)**

- Worked on ArchiLabs' mission to create the first AI Architect to make all new construction faster & more affordable
- Developed across the full stack, including Revit integrations, React frontend, Supabase, and AI agents powered by LangGraph
- Worked directly with the CEO and CTO founders and the BIM specialist
- Contributed to a fast-moving YC-backed startup focused on solving critical problems in the construction industry
- Improved the AI capabilities to enhance construction planning and design efficiency
- **Technologies:** React, Supabase, LangGraph, LangChain, LangSmith, Revit integrations, AI agent systems

Software Engineer (AI/ML Platform) **Oct. 2022 - Jan. 2024**
Phaidra **Seattle, WA (Remote)**

- Spearheaded orchestration and automation of AI agent training (with each agent an ensemble of PyTorch models) into an MLOps pipeline backed by a self-hosted in-cluster duo of Prefect Server and Agent to run training ad-hoc and on-schedule, with follow-up work demonstrating the migration path from the deprecated Prefect Agent to Kubernetes-native Prefect Worker.
- Rapidly prototyped a working MVP showcasing how we could easily scale the training runs via the Prefect-Ray integration and an in-cluster or Anyscale Cluster, also presenting SkyPilot as a way to abstract Ray and cloud computing resources, optimizing for minimal computational cost or time.
- Modernized the developer experience for the AI Platform team by bringing in Tilt to watch for changes in the Kubernetes manifests for full Docker build/pushes, thereafter updating pods without reload for fast iteration, and providing custom functionality to run data preparation, agent training, and inference pipelines via configurable buttons in the Tilt UI.
- **Technologies**: Cloud SQL for PostgreSQL, Docker, Google Cloud Platform (GCP), Google Kubernetes Engine (GKE), gRPC, Prefect, Python, PyTorch, Ray, SkyPilot, Tilt

Teaching Assistant **Aug. 2022 - Dec. 2022**
Georgia Institute of Technology **Atlanta, GA (Part-Time; Remote)**

- Served as a Teaching Assistant (TA) for CS 7639: Cyber-Physical Systems Design & Analysis.

Machine Learning Engineer **Oct. 2021 - Jul. 2022**
Greyscale AI **San Carlos, CA**

- Created a proof of concept (POC) for a data engineering pipeline to extract, transform, and load images and their corresponding labels from various data sources and formats into the COCO dataset format with k-fold train-validation-test splits using the FiftyOne and Albumentations libraries.
- Constructed a POC for a data modeling pipeline to train and validate a PyTorch Faster R-CNN model with various modifications for computer vision tasks such as object detection and image segmentation from a train-validation split output by the data engineering pipeline.
- Assembled a POC for a model deployment pipeline to deploy a model produced by the data modeling pipeline into a local docker container running TorchServe (or SageMaker) to run inference tests upon that model and to trigger the creation of a function that ran on schedule to monitor the deployed model.
- Designed a dashboard using Amazon QuickSite to automatically generate visualizations, including emails pointing to those visualizations, that displayed the performance of the served model and assigned SageMaker GroundTruth jobs for our internal teams to help with data labeling.

- Built a POC framework using Kedro and DVC to join the data engineering, data modeling, and model deployment pipelines, running pipeline components only when artifacts tracked by DVC changed.
- **Technologies**: Albumentations, Amazon QuickSite, Amazon SageMaker Ground Truth, Docker, DVC, Faster R-CNN, FiftyOne, Kedro, Matplotlib, MobileNet, NumPy, pandas, Python, PyTorch, scikit-learn, TorchServe, torchvision

Machine Learning Engineer **Sep. 2018 - Oct. 2021**
Ople.AI **San Mateo, CA**

- Refactored the data ingestion pipeline into more modular components.
- Drove the model explainability implementation.
- Led the development of the forecasting service.
- Built a worker service that operated on graph structures representing machine learning tasks and states.
- Developed various features and addressed bugs in our systems.
- **Technologies**: Amazon Forecast, Amazon Web Services (AWS), Docker, Docker Compose, JavaScript, LightGBM, Matplotlib, NumPy, pandas, Python, SHAP (SHapley Additive exPlanations), Tableau

Software Engineer **Nov. 2016 - Sep. 2018**
BigCommerce **San Francisco, CA**

- Engineered features for the BigCommerce storefront platform.
- Wrote unit tests for all new and changed code, increasing code coverage.
- While taking the lead on building out a new feature, discovered an opportunity to improve the codebase by refactoring the code into an easier-to-reason-about structure such that future additions wouldn't require as much overhead.
- **Technologies**: Amazon Web Services (AWS), Docker, gRPC, hapi, JavaScript/TypeScript, Laravel, PHP, React, Ruby, Ruby on Rails

Software Engineer **May 2014 - Oct. 2016**
Autodesk (via Globant) **San Francisco, CA**

- Implemented features for the Customer Enterprise Portal for Autodesk.
- Caught up to speed quickly, diving into the codebase with minimal support.
- Formed a POC to re-architect a centerpiece of the Portal, refactoring spaghetti code and building a more well-organized system that can easily accommodate new types of Autodesk products and services along with their associated data and functionality.
- Taught and led other developers with patience and a desire to improve their understanding.
- Responded to bugs, defects, and applicable business concerns with a strong sense of urgency.
- **Technologies**: Amazon Relational Database Service (RDS), Apache Tomcat, Backbone.js, Docker, Java, Java Servlets, JavaScript/TypeScript

Software Engineer **Aug. 2012 - May 2014**
PlantLog **Pleasanton, CA**

- Converted features from the legacy implementation of PlantLog, which ran only on Windows as a native application, to a web and mobile application hosted in the cloud. Re-architected the backend to be RESTful, refactoring a single large switch case into resource-specific endpoint logic.
- Converted legacy reporting components for use in the new system.
- Rebuilt the mobile app, using the BackboneJS framework to organize the application.
- Added barcode scanning/lighting functionality to the mobile app.
- **Technologies**: Amazon Web Services (AWS), Apache Cordova/PhoneGap, Backbone.js, Google Web Toolkit (GWT), iOS, JasperReports, Java, JavaScript

Education

Master Of Science In Computer Science **Jan. 2018 - May 2026**
Georgia Institute of Technology **Atlanta, GA (Less-than-Part-Time; Remote)**

- Specialization in Artificial Intelligence

Bachelor Of Arts In Physics
University Of California, Berkeley **Berkeley, CA**