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Tyler Cross
Machine Learning Engineer

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Machine Learning Engineer with unique background combining direct patient care experience as an EMT with expertise in developing AI/ML solutions for healthcare operations, specializing in end-to-end data platforms and predictive systems that improve patient care delivery and business outcomes.

EXPERIENCE

Data Analyst   **Nov 2021 — Present**
Ophelia Health   *Brooklyn, New York*

- **Lead ML developer** for clinician availability and capacity management. Designed prediction algorithms using XGBoost/scikit-learn to optimize provider availability for 8,000+ patients across all appointment types. Engineered full-stack solution (BigQuery, dbt, TypeScript, Python) integrating with Acuity Scheduling API. Reduced manual calendar management by 0% (20hrs/week), unlocked 0+ weekly intake hours, increased slot availability 0%.
- **Lead data engineer** for asynchronous visit scheduling transition. Developed Python/dbt pipelines and collaborated on React frontend components. Implemented intelligent capacity balancing system for 8,000+ patient routing. Maintained 0%+ appointment availability while reducing scheduling friction.
- **Architect of financial reporting** and claims processing systems. Built comprehensive dbt/LookML infrastructure for financial reporting. Partnered with engineering to automate Candid Health claims submission. Processed 10,000+ monthly claims, accelerating revenue recognition through automation.
- **Lead analytics engineer** for provider utilization analytics platform. Architected ETL pipeline combining Python, dbt, and LookML for real-time provider insights. Implemented complex SQL logic for patient attribution and visit metrics. Improved provider utilization by 0% through data-driven staffing optimization.
- **Lead ML developer** for patient retention prediction system. Developed NLP model to analyze clinical notes and predict patient discharge risk. Achieved 0% predictive accuracy and reduced unexpected discharges by 0/Integrated predictions into clinical workflows supporting 0/+ monthly patients.

Emergency Medical Technician   **Feb 2017 — Aug 2022**
GEM Ambulance & MSHVFAS   *Totowa & Millburn, New Jersey*

- **911 EMT** responsible for both emergent and non-emergent calls within New Jersey, Pennsylvania, and New York. Managed hundreds of COVID-19 positive patients, averaging 3-5 per day, during the height of the pandemic. Worked intimately with fire, police, paramedic, and emergency room services to deliver patient care.

Consultant   **Jun 2019 — Dec 2019**
LifeSciences Consultants   *Milan, Italy*

- **Quantitative analyst** of insurance claims data, epidemiology, and prescribing patterns, facilitating go-to-market strategies for rare disease treatments utilizing cell and gene therapy. Led market adoption planning across U.S., Canada, U.K., and European markets for clients including Celgene, Roche, Takeda, and bluebird bio. Reported directly to global managing partner and European office principal.

SKILLS

Tools & Languages	Python, TypeScript, SQL, React, Firebase, R, Git, dbt, Docker, Kubernetes, Spark
Platforms & Services	Google Cloud Platform (GCP), AWS, Azure, BigQuery, Looker, Snowflake, Databricks
Libraries & Frameworks	scikit-learn, XGBoost, PySpark, PyTorch, TensorFlow, pandas, NumPy, FastAPI, Node.js

EDUCATION

MS, Data Science, *University of California, Berkeley*   **Aug 2023 — Present**
- Relevant coursework: Machine Learning at Scale, Machine Learning Systems Engineering, Applied Machine Learning, Statistics for Data Science, Natural Language Processing with Deep Learning

BA, Philosophy, *Cornell University, GPA: 3.95*   **Jan 2020 — May 2023**
- Selected coursework: Decision Theory, Epistemology, Philosophy of Language, Modern Philosophy, Hellenistic Philosophy, Big Data on the Social World

ACTIVITIES

Treasurer of Watermargin Cooperative	**Sep 2021 — May 2023**
Treasurer of Fanclub Collective	**Sep 2020 — May 2022**

Other interests: Aquariums / Terrariums, Music Production, Volleyball, Interior Design