

James Aaron Ellis

Work Experience

MikMak Engineering Manager *June 2021 to present*

A continuation of my first role at MikMak, I now manage the Data Engineering Team: 5 engineers responsible for third-party data ingestion; maintaining and enriching all client-facing data resources; internal data analysis. My team sits at the center of MikMak's core product offering and we deliver new or enhanced products multiple times per quarter. We run regular hackathons that have spawned production machine learning models and fundamentally restructured legacy architecture.

MikMak Software Engineer II *Sept 2020 to June 2021*

Architected and built the main data artery for MikMak's Insights product. Back-end and dev-ops. Python orchestrated by Airflow (using some Cloud Functions) inside of the Google Cloud environment. Largely batch processing from a variety of API resources; alerting to Slack and Squadcast; telemetry in DataDog and custom-built PostgreSQL databases. Handles ~500K rows per hour.

• Airflow • GCP • SQL • Python • DBT • K8s • Docker

FreeWill Senior Data Analyst *Feb to June 2020*

I handled all the data needs for this team of fifty-plus; built Looker dashboards, handled one-off requests, created integrations with third party vendors like Salesforce and Hubspot, held training sessions, and put out a weekly(!) internal data newsletter. My models helped chart a steady fiscal course by predicting cannibalization and setting necessary growth figures.

• Python • Looker • Salesforce • Postgres • TypeScript

Loeb.NYC Data Scientist *Dec 2017 to Feb 2020*

Created all customer-facing visuals and helped define the database structure for [3x3 Insights](#), a mid-stage start-up bringing light to the independent liquor market. I worked directly with all shareholders in our small company, educated our sales team, pitched to clients, and steered the direction of the analytics for the company. Generate business value and deliverable insight by modeling sales performance and identifying buying trends at multiple levels of product and store aggregation. Methods I used: DBSCAN, Gaussian Mixture Models, KNN for clustering, ARIMA and FB Prophet for sales prediction; Markov Chains and classification/regression models for user churn.

• Python: Pandas, Scikit-learn, NumPy, SciPy, Jupyter • Microsoft Power BI • Redshift/Azure • Microsoft SQL

STATS Software Engineer *Oct 2015 to Dec 2017*

Built internal websites, report ingestion tools, and monitoring reports. Developed client-facing API endpoints and helped build an internal API. Overnight on-call shifts; clients like Google, Microsoft, Apple. Full-stack responsibilities that included database work, MVC frameworks, and front-end development.

• Oracle SQL • C#/.NET • Visual Studio • Angular



Who I Am. What I do.

I am a trained neuroscientist who left doctoral studies early because I found I could better satisfy those same passions for research science in the world of technology: mentoring, innovating, and finding hidden stories in data; then crafting the right narrative from those insights for the audience in front of me. I consider myself a servant-leader, someone who counsels in addition to developing engineering talent.

Education

Master of Science Northwestern University
NEUROSCIENCE

Bachelor of Arts Franklin and Marshall College
BIOLOGICAL FOUNDATIONS OF BEHAVIOR

Work Experience (cont'd)

Mozilla Quantitative UX Intern *Summer 2013*

Used click-level events from a two-thousand participant study to create a story about tab and window usage. (One of Mozilla's largest studies.) Tracked 1.5 million individual tabs over a three week period. Presented results in a company-wide broadcast. Research informed product enhancements made available to Firefox users to improve time on page and page load times.

Google UX Research Assistant *Summer 2012*

I joined the Google [x] User Research team at a pivotal time for Project Glass. The product was slated for shipment to developers in a matter of months and the user interface (UI) needed a fundamental redesign. Conducted benchmark studies of Project Glass, and a separate comparison of multiple UIs that led to a decision on the primary User Interface and general design improvements.

Selected Publications

MN Pavuluri, JA Ellis,... (2012) Pharmacotherapy impacts functional connectivity among affective circuits during response inhibition in pediatric mania Behavioural Brain Research

E Wegbreit, JA Ellis, ... (2012) Amygdala functional connectivity predicts pharmacotherapy outcome in pediatric bipolar disorder. Brain Connectivity

Full publication list ([Google Scholar Page](#))