

Ryan Ptomey

Full-Stack Software Engineer (Python / JavaScript)

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Professional Summary

Full-stack software engineer with 4+ years of experience building data-driven web applications, automation tools, and server-side tracking systems, supported by 16+ years across the analytics, advertising, and web industries. Skilled at connecting APIs, cloud services, and visualization tools to streamline workflows and enable new business capabilities. Strong foundation in both front-end and back-end development, with expertise in Python, JavaScript, and Google Cloud Platform.

Skills

Languages: Python, JavaScript, SQL

Frameworks: Django, Flask, Streamlit, Astro

Web: HTML, CSS, Bootstrap, REST APIs, Google Tag Manager

Cloud / DevOps: Google Cloud Platform (Cloud Run, Cloud Functions, BigQuery, Terraform), Docker (basic), CI/CD (basic)

Data & Analytics: Google Analytics (UA & GA4), Looker, Tableau, Redshift, PostgreSQL, MySQL, MS SQL Server

Tools: Git (GitHub, Bitbucket), Colab / Jupyter, VS Code, macOS, Zsh

Experience

Data Engineer *Adswerve* **Jul 2022 - Present**

- Built and deployed multiple internal and client-facing applications using **Python, JavaScript**, and **Google Cloud Platform** (Cloud Run, BigQuery, Terraform).
- Developed **web-based automation tools**, including a Django app for IP range management and a video validation app comparing uploaded ad files to technical specifications.
- Created **server-side tracking systems** on GCP, enabling secure and scalable event forwarding for marketing and analytics clients.
- Enhanced and maintained open-source libraries, including the **GA4 Measurement Protocol Python SDK**, adding support for new parameters and ecommerce use cases.
- Integrated **REST APIs** for data delivery to external platforms (Facebook, Campaign Manager 360, and others).
- Authored reusable **JavaScript tracking scripts** for Google Tag Manager supporting YouTube, HTML5, and enterprise video players.
- Prototyped **generative AI features** in Streamlit to provide narrative interpretations of dynamic visualizations.

Senior Digital Analyst *Adswerve* **Aug 2019 – Jul 2022**

- Implemented and maintained **web analytics codebases** across 30+ enterprise websites using HTML, CSS, and JavaScript.
- Engineered **data collection strategies** for single-page applications, improving event accuracy and reducing data loss.
- Created **templated GTM containers** and reusable code libraries, reducing deployment time by 40%.
- Delivered **technical training** to developers and analysts on analytics instrumentation and debugging workflows.
- Collaborated with client engineering teams to integrate **Enhanced Ecommerce tracking** for web and mobile platforms.

Manager of Web Analytics *Alight Analytics* **Apr 2018 – Aug 2019**

- Managed a team of web analytics specialists delivering **custom reporting solutions** and **data pipelines** for B2B and B2C clients.
- Developed and maintained **JavaScript-based tracking implementations** and dashboards in **Tableau** and **Data Studio**.
- Collaborated with clients to design **data collection strategies** aligned to actionable business goals.
- Automated recurring reporting and onboarding processes, improving delivery speed and consistency.

Marketing Insight Analyst *Alight Analytics* **Feb 2016 – Apr 2018**

- Implemented **Google Analytics and Tag Manager tracking** across multiple client websites to measure marketing performance.
- Built and maintained **interactive Tableau dashboards** and **custom JavaScript tracking scripts** to enhance insight accuracy.
- Partnered with development teams to troubleshoot and optimize event data collection.
- Recognized for delivering exceptional client support and data-driven analysis across high-profile accounts.

- Transitioned from client management to technical operations in a pay-per-click advertising agency, introducing **process automation** and data-driven reporting for marketing teams.

Education & Certifications

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| • CS50w: Web Programming with Python and JavaScript | Harvard University (2021) |
| • CS50x: Computer Science Fundamentals | Harvard University (2021) |
| • M.A. Marketing Communications | University of Kansas |
| • B.A. English | Loyola University Chicago |

Projects & GitHub Highlights

- **GCP SFTP Server for GA4 Data Import (Terraform):** Developed an open-source Terraform project that automates provisioning of an SFTP server on Google Cloud for GA4 Data Import. Configures a Compute Engine VM connected to Cloud Storage with service accounts for secure access.
GitHub → [adswerve/gcp-sftp-server-for-ga4-data-import-terraform](#)
- **Adswerve IP Tool (Django):** Built a web application for internal users to convert IPv4 address ranges to CIDR and RegEx formats for network configuration. Deployed on GCP for internal automation.
Live Demo → [adswerve-ip-address-tool.web.app](#)
- **GA4 Measurement Protocol for Python (Open Source):** Contributed to an SDK enabling server-side event collection for Google Analytics 4. Added support for new parameters, ecommerce data models, and improved documentation.
GitHub → [adswerve/GA4-Measurement-Protocol-Python](#)
- **Video Tracking Scripts (JavaScript):** Developed reusable event-tracking scripts for YouTube, HTML5, and enterprise video players using the Intersection Observer API. Deployed via Google Tag Manager for multiple client websites.
- **Advent of Code 2024 (Python):** Completed 15 days of programming challenges focused on algorithmic problem-solving and code efficiency. Solutions emphasize clean, testable Python code.
GitHub → [rptomey/advent-of-code-2024](#)