

MACIEJ KALISIAK

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Professional Summary

Generalist SWE with **18 years** of Google experience, spanning:

- solid record as **Individual Contributor** (L4-L6) and **Technical Lead Manager** (TLM)
- 3 Google Product Areas: **Ads**, **GKE/Kubernetes**, and **Gmail**
- IC focus: **high-reliability**, **high-scale** distributed systems, **Observability**, **Debuggability**
- TLM focus: bootstrapping **high-performing teams**, operational excellence
- AI focus: leveraging LLMs for explaining inherited code, code gen, automating toil

Professional Experience

Gmail Backend Infrastructure

Staff Engineer (L6) - TLM, IC

Nov 2022 – Current

- Managed team of 7 in 6mo+ effort **modernizing** our prod deployment layout.
- Drove Incident Response in a handful of critical (SVP+ visibility) outages; in particular:
 - Led team to
 - i. deploy Google's **load-shedding technology** across all our key binaries (6)
 - ii. simplify approach by turning down & eliminating outdated, complex stack feature
 - (IC) Designed & rolled out a quick'n'dirty **loadtest framework** to reproduce the detected spam attack vector, confirming robustness of our mitigations.
 - (IC) Designed & implemented **biasing mechanism** into our store-and-forward architecture
- (IC, sideproject) Modernized Gmail's primary (but very aged) **debugging** tool: rapid implementation in Colab notebook, added new features, Gemini-integration.
- Drove a variety of **latency improvements**, as well as better measurement; collaborated with our SREs on implementation & debugging of **latency SLOs** for our service.
- Executed broader team **toil reduction** initiatives, including tracking & analysis of our Release and OnDuty rotations time spend, retiring low value testing infra, merging rotations
- Took over & rolled out complex but launch-critical **application licensing** work; executed across 4+ layers of teams, escalations, debugging of the underlying brittle infrastructure.

GKE / Kubernetes

Staff Engineer (L6) - TLM

Jan 2019 – Oct 2022

- **Team Growth & Management:**
 - Instrumental in growth and leadership of the *first* GCP team in the Waterloo office. GCP now has several hundred engineers in Waterloo.
 - Partnered w/Senior Leadership to rapidly grow GKE team in Waterloo
 - Onboarded and ramped-up 2 new managers, off-loaded reports (reached ~17 reports for 5+ months)
 - Critical leader who navigated unique challenges: COVID, performance issues, culture friction between employees and externally hired leadership
 - Rapidly built & led a strong team for Anthos Observability team in response to sudden mandate; high team promotion rate (~80%).
- **Observability Team Leadership:**
 - Team took on mandate to build and enhance observability through all layers of GKE; built event collection & repository, Datadog-inspired visualization
 - Took over Anthos Observability (monitoring, metrics, and logs) from the disbanded Stackdriver team, reworked as a common solution across OnPrem, OnBareMetal, and OnAWS
 - Grew to include lower level Kubernetes observability after absorbing scope from sister team
 - Visualization of Cluster History in Pantheon.

Google Ads / Display Ads

Senior/Staff Software Engineer (L4-L6) / TLM

Mar 2008 – Dec 2018

- **Next-gen Serving System:**
 - Designed and rebuilt the overall control flow structure (FSM) of central “mixer” service.
 - Re-implemented the overall ad targeting flow logic, to parallelize calls to ad exchanges and real time bidders.
 - Led design & reimplementations of a more light-weight “targeting signal” computation, to better fit real-time bidder deadlines.
 - Owned the entire next-gen launch: experimentation, validation, and production rollout.
 - Led team (design, implementation) to devise a turn-key solution for quickly building & introducing further ad provider services (used for AdSense Direct Sales & X-Ads).
- **Data Architecture & APIs:**
 - Co-designed and implemented the API, architecture, plumbing for data about the Publisher.
 - Co-designed the unified API for representing which ads won (originally highly heterogeneous, esp. between auction & reservation systems).
 - Designed & induced a more structured form for our central ad request/response API (initially mostly flat “kitchen sink”)
- **Ads Experiments Infra** (production-live A/B experimentation system handling trillion events/day): Modernized through flag API update, introduced file-valued flags, better dashboards

- **Skunkworks team:** pursued a number of experimental but critical issues:
 - Developed emergency release procedure & tooling to bring down cherry-pick binary push process down from ~8h to ~1h
 - Tool for correlating prod anomalies with system changes (e.g., binary release, experiments)
- **Compliance:**
 - Designed & implemented frequency capping for mobile ads
 - Ensured **COPPA** compliance of our team's primary servers
 - Implemented **Gambling advertiser blacklisting**

Education

Computer Science | Ph.D. – University of Toronto, 1999–2007

Thesis: [Toward More Efficient Motion Planning with Differential Constraints](#)

Publications: [list](#)

Computer Engineering | M.A.Sc. – University of Toronto, 1997–1999

Thesis: [A Grasp-based Motion Planning Algorithm for Intelligent Character Animation](#)

Electrical Engineering | B.A.Sc. – University of Waterloo, 1992 – 1997

Skills

- **Languages:** Python, C++, Go, SQL; familiar with: Java, Javascript, LISP, Haskell, Lua
- **Methodologies:** A/B Experimentation, A/B prod diff validation, CI/CD pipelines, Agile, Microservices architecture
- **Data analysis:** Colab (Jupyter Notebook), R
- **Tooling:** Google Cloud, Kubernetes, Docker, [GitHub](#), Git, Fig, Linux
- **AI:** Claude Code, gemini-cli, NotebookLLM

References available upon request.