

JAMES FOLK

LLM Prompt Engineering · Model Evaluation · Training-Data Quality | C/C++ · Python · SQL

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SUMMARY

Prompt engineer and principal software engineer. Three years designing and optimizing production LLM prompts for summarization, classification, and entity extraction, and leading the teams that produce and audit the training data models learn from. I treat a prompt as something to measure rather than something to word well: I build the golden set and the regression gate first, then change the prompt. Twenty years of C/C++ systems work underneath, so I can ship the harness as well as design the eval. Comfortable saying what a result does not prove.

AI AND LLM WORK

Prompt engineering: Prompt design and iterative optimization by experiment; summarization, classification, and entity extraction; multi-step and agentic workflows; adversarial probing for the loopholes that produce confident wrong answers; system-prompt authoring and scoping

Evaluation: Golden sets, held-out slices, regression gates, mutation testing as a check on whether a test would actually fail, confusion-matrix test design, measurement-noise tolerance bands, property-based fuzzing

Data quality: Audit of training tasks across five languages against written specification; annotation-guideline authoring; rater recruiting, onboarding, and interviewing at program scale

Guardrails: Instruction-versus-data boundaries, allowlists in place of interpolation, server-side request forgery avoidance in tool design, append-only audit logging, narrowly-scoped operator privilege

Engineering: C/C++ (11-20), Python, SQL, Dart/Flutter; Model Context Protocol server implementation; PostgreSQL, Redis, S3; CMake, GitHub Actions, Docker

EXPERIENCE

Instructor (LLM Prompt Engineering) | [Remotasks](#)

April 2022 - November 2023 · Remote

- Designed and optimized production LLM prompts for summarization, classification, and entity extraction, iterating by experiment and keeping the versions that measured better rather than the ones that read better.
- Probed prompts adversarially for loopholes, the inputs where a model returns a confident wrong answer, and closed them before the output was treated as production grade.
- Built multi-step and agentic LLM workflows with product teams, improving model performance on the task benchmarks the team tracked.

Platinum Team Lead | [Scale AI](#)

November 2023 - November 2024 · Remote

- Led a team of coding experts producing the software training data that AI models learn from.
- Audited training tasks in C++, Python, JavaScript, Java, and SQL against the project specification. The audit is where data quality is actually decided, so I read the spec as closely as the submission and sent back the cases where the two disagreed.
- Ran recruiting, onboarding, and interviewing as the expert program scaled, and directed a team of interviewers.

Founder / Principal Software Engineer | [NJLIGames Ltd](#)

October 2010 - Present · Mount Sinai, NY

- Built a deterministic evaluation harness for model-written copy (check_voice.py, 239 lines) and the enumerated rule set it enforces. Took the published corpus from 67 rule violations to zero across 118 files, and wired the gate into the site generators so a regenerate cannot reintroduce one. Split the rules into an error tier a regex can decide and a warning tier a person judges, after discovering that false positives on correct usage had trained me to skim past my own gate.
- Wrote and maintain the system prompt governing every AI-assisted change to a production C++/Flutter product: standing rules, hard constraints, and a catalogue of failure modes recorded with symptom, cause, and fix the day each one cost time.
- Designed and shipped a Model Context Protocol server (PostBaton) that schedules social posts across five networks, so the tool-calling contract is something I have implemented on the server side rather than only consumed as a client.
- Built a text classifier for user-generated content with a deliberate precision tradeoff: a short severe-only term list, input normalization to catch character-substitution and punctuation-splitting evasion, and tests asserting that the words a

member needs in order to report abuse are never blocked. 9 unit and 11 integration tests, organized as a confusion matrix.

- Architected and maintain a cross-platform C++ engine powering 10+ original games and VR experiences.

SOFTWARE ENGINEERING EXPERIENCE

Senior Roku Developer | [NBCUniversal](#)

January 2026 - July 2026 · Remote

- Worked on the video player for Peacock on Roku through Super Bowl LX and the Winter Olympics; stabilized a crashing Rooibos unit-test suite by fixing memory issues, and integrated Adobe Edge analytics.

Senior Software Engineer | [Neology, Inc.](#)

December 2024 - January 2026 · Texas (remote/field)

- Designed multithreaded real-time software for lane-side tolling systems processing millions of daily micro-transactions under strict latency and accuracy requirements, in C++, SQL, and JavaScript.

Principal Roku Developer | [Comcast](#)

February 2023 - July 2025 · Philadelphia, PA

- Led the team owning the Roku Video Player inside Xfinity Stream, used by millions of subscribers.
- Technical lead on the Roku Interstitial Library integration, which grew linear ad revenue 300%; wrote the RFC 6570 URITemplate library the HLS to DASH migration was built on.

Senior Software Engineer | [Warner Bros. Discovery](#)

January 2020 - June 2022 · Remote

- Built screens and extended the event system for the discovery+ Roku app; implemented VoiceOver accessibility in the discovery+ iOS and tvOS apps in Swift.

Principal Roku Developer | [The Church of Jesus Christ of Latter-day Saints](#)

October 2021 - February 2023 · West Jordan, UT

- Took the Church's streaming channel from an empty repository through Roku certification. Live today as Gospel Stream.

Project Lead Developer | [National Institute of Standards and Technology \(NIST\)](#)

March 2022 - November 2022 · Virginia

- Led an augmented-reality project using Unity, HoloLens 2, and Vuforia to improve first-responder effectiveness.

Halo Gameplay Engineer | [343 Industries](#)

February 2021 - June 2021 · California

- Contributed to Halo Infinite gameplay in C++ and Lua.

Earlier roles: Game Developer, Visual Concepts (2K, 2021) · Lead Software Engineer, Zebra Technologies (2019-2021) · Software Engineer (Blockchain), Block One (2019-2020) · Software Systems Engineer IV, Envrmt by Verizon (2017-2019) · Principal Software Engineer, Green Energy Research (2013-2019) · Mobile Software Engineer, CA Technologies (2014-2016) · Software Developer, OpenLink Financial (2011-2013) · Game Programmer, Powerhead Games (2006-2010; shipped 7 Nintendo DS/DSi/GBA titles incl. MLB 2K10).

EDUCATION & CERTIFICATIONS

Doctor of Science, Computer Science (in progress), University of North Dakota

MBA, Business Administration & Management, Strayer University (2022)

B.S., Computer Science, Stony Brook University · A.S., Computer Science, Suffolk County Community College

Certificates: Machine Learning, Columbia Engineering (2019) · Machine Learning with Python · Agile with Atlassian Jira