Blake Bailey

Florence, SC · (843) 616-1069 · blake@blakells.dev · blakells.dev · github.com/Blakells

SUMMARY

Self-directed problem solver focused on AI agents and automation, with a hands-on background in vehicle systems and data analysis and nearly 10 years of independent investing. I learn new tools quickly, take systems apart to understand how they work, and keep at a problem until I have the root cause. I built Preflight, an open-source job-application agent whose dry runs are enforced inside the browser, and I run telemetry analysis for a competitive motorcycle racing program.

SKILLS

AI & automation	Claude Code and agentic workflows (subagents, MCP tools), LLM APIs, prompt design, Python, Playwright/Patchright browser automation, Flask, OAuth integrations, multi-model code review, self-hosted local LLM inference
Data & analysis	AiM RaceStudio 3 (custom math channels), telemetry analysis, performance simulation, CSV data pipelines, video data overlays
Vehicle systems	CAN bus reverse engineering, diagnostic troubleshooting, brake hydraulics, motorcycle build and maintenance, car and truck repair
Finance	DeFi and on-chain protocols, yield farming, active trading, long-term investing, independent market research

EXPERIENCE

Independent Investor · Self-Employed · Florence, SC

2017 – Present

- Managed a personal investment portfolio full time for nearly 10 years.
- Self-funded my living expenses from personal investment returns, with no outside capital, advisors, or employer.
- Researched and deployed capital across decentralized finance (DeFi) and on-chain protocols, including yield farming, active trading, and long-term positions.
- Made every allocation, entry, and exit decision independently through market cycles that included multiple major drawdowns.

TECHNICAL PROJECTS

Preflight · AI job-application agent, open source

2026

github.com/Blakells/preflight

- Built an end-to-end pipeline that discovers job postings, scores them against a profile with an LLM, tailors the resume and cover letter, renders PDFs, and hands each application to a Claude Code browser agent.
- Enforced dry runs inside the browser: a guard script in every page and frame blocks the final submit, and a hook refuses JavaScript the agent writes itself, so the agent cannot route around it.
- Supports Ashby, Greenhouse, Lever, iCIMS, Workday and other applicant tracking systems through tested helper scripts and per-ATS playbooks.
- Got past bot detection with the Patchright stealth driver, natural mouse input, CAPTCHA-solving services and proxy routing.
- Covered by 805 offline tests, with a fake LLM server and the guard exercised in real Chromium; CI on Linux + macOS.
- Its private predecessor has submitted 50+ live applications.
- Led development by directing AI coding agents with a test-first workflow and an independent AI code reviewer.

Lantern Hollow · Browser game 2026

blakells.dev/lantern-hollow

- A small, cozy dungeon crawler in plain JavaScript and Canvas 2D, with no build step and no dependencies.
- Procedurally generated, seedable floors, a light radius that shrinks as the lantern's oil burns, a minimap, and touch controls; installs to an iPhone Home Screen.

Local inference server 2026

- Built a local inference server (4× RTX 6000 Pro) to run language models on my own hardware.

Race Telemetry Analysis & Vehicle Diagnostics 2026

- Analyzed AiM Solo 2 DL data in RaceStudio 3 using custom math channels. Pinpointed missed downshifts, clutch slip, and a lean-angle asymmetry costing lap time.
- Built a custom CSV workflow that overlays wheel speed and slip percentage on onboard video for lap-by-lap review.
- Ran physics-based simulations and engine performance analysis to compare race platforms and set realistic power and weight targets.
- Resolved a clutch switch fault capping RPM, and a tire circumference mismatch that skewed speed data.
- Converted a street motorcycle to race spec: ride-by-wire throttle, master cylinder, brake lines, suspension, exhaust, and ECU tune.
- Background in CAN bus reverse engineering and vehicle telemetry.

LEADERSHIP & ATHLETICS

- Competitive motorcycle road racer, WERA/ASRA, 2026 season. Raced and tested at VIR, Barber, Road Atlanta, Roebling Road, and Carolina Motorsports Park.
- Volunteer riding coach. Coach riders on riding technique and bike setup.
- Premier-level travel soccer at age 16, the top tier of youth club soccer, where college scouts recruit.

EDUCATION & LICENSES

Bachelor's degree · Thomas Edison State University Expected March 2027

Earlier coursework

- Computer science, Francis Marion University (2020 – 2021)
- Software engineering, Western Governors University (2026)

Licenses: WERA competition racing license; South Carolina motorcycle endorsement