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Head of Estimating & Preconstruction · Builds and Deploys Construction Technology · 13-State Commercial Book

Open to relocation and travel

PROFESSIONAL SUMMARY

Head of Estimating & Preconstruction for a **13-state commercial flooring contractor**, directing a 3-person team and the full bid lifecycle from intake and go/no-go through takeoff, vendor RFQs, proposal, subcontract signature, and award handoff. Closed **\$5M+ of awarded work from 615 competitive invitations (~12% win rate)**, average award up **~2.6x**, and coached estimators from **~\$100K/yr into the ~\$750K band**. I work in the precon stack the industry sells into every day (Autodesk BuildingConnected and Takeoff, Procore, STACK CT, Bluebeam), and I built the one my own department bids on: **Spline**, an AI estimating platform in production on live bids, which I rolled out, trained the team on, and govern. **OpenTakeoff** is the open-source engine under it (Apache-2.0, **137 stars / 58 forks, 9 outside contributors**), published to npm as a **40-tool MCP server** with **three production integrations outside my own company**, one built by a licensed Civil PE at an **ENR Top 500** firm. I fine-tune and evaluate the models myself and publish the failures next to the wins: SSRN preprint, Hugging Face model, U.S. provisional 64/110,144. **NWFA Certified Installer**, so the ground truth the models are graded against is mine.

The rare combination: I've installed the floor by hand, project-managed the crews that install it, owned the flooring company, run the corporate materials-and-cost side, led the estimating department — and built the AI software the team estimates with. Most flooring professionals have done one of these. I've done all six.

\$5M+
CLOSED · 615 INVITATIONS
· 13 STATES

~12%
WIN RATE · AVERAGE
AWARD UP ~2.6x

7.5x
ESTIMATOR RAMP · \$100K
→ \$750K BAND

3
PRODUCTION
DEPLOYMENTS OUTSIDE
SFG · 40 AGENT TOOLS

PROFESSIONAL EXPERIENCE

Head of Estimating & Preconstruction · AI Lead · Summit Flooring Group — Frankfort, KY Jan 2023 – Present

- Lead and own the estimating department as **Head of Estimating**, directing a 3-person team (myself + 2 estimators) and accountable for the **full bid lifecycle** — intake, scoring, go/no-go, takeoff, vendor RFQs, proposal, contract, and award handoff — across a 13-state Division 9 commercial flooring book; also serve as the company's **AI Lead**.
- Designed and implemented the department's **go/no-go process and bid scoring matrix** — the intake gate that decides which invitations get priced at all. Turned target selection from a gut call into a scored, repeatable decision the whole team applies the same way.
- Built the department's **sales and bid strategy** and coached the team onto it — estimators producing **~\$100K/yr of awarded work moved into the ~\$750K band, roughly 7.5x**. That was the first time I turned my own estimating judgment into something another person could run. The software came after.
- Review, **redline, negotiate, and sign subcontracts** — scope, lien rights, payment / bond / notice terms, and substrate / moisture exposure — protecting margin before signature. *(Contract authority is rare for an estimator, and it is why I know which model errors actually cost money.)*
- Train and onboard new estimators** — setting the bid / proposal templates, QC standards, and the estimating playbook for winning work.
- Closed **\$5M+** of awarded flooring work from **615 competitive invitations (~12% win rate)** across a 13-state commercial book, average award size up **~2.6x** from 2023 to 2025. That bid history is the training and evaluation corpus everything below is measured against, and I am the person who priced it.
- Bid a 13-state footprint with no local crews, so I **source and qualify installers cold and level competing subcontractor proposals** on every out-of-state award; run vendor RFQs, **value engineering**, and **conceptual budgets** from schematic sets. Invitations are fielded through **Autodesk BuildingConnected**; takeoffs run in STACK CT, Bluebeam, and Spline.
- Designed, built, and deployed the department's AI estimating platform (**Spline**) — digitizing planset takeoff, spec analysis, and risk flagging, and moving the team off manual review onto a data-driven, auditable workflow; **govern AI rollout across the company**. Also built the **Bid Board**, the Outlook → n8n → Postgres → dashboard intake pipeline the department now runs on.

- Ran that rollout as its **implementation lead**: requirements gathered from working estimators, deployment into live bids, SOPs and hands-on training, adoption tracking, and spend controls on model usage. The users are the two estimators who report to me, so the feedback on what broke arrived in person and got fixed the same week.

Founder & Principal · Kentucky AI — Shelbyville, KY

Mar 2026 – Present

- Founded an AEC AI / automation venture; designed, built, and deployed **Spline**, an AI bid-intelligence platform for commercial Division 9 flooring, **in production at Summit Flooring Group running live commercial bids**.
- Engineered the full stack — FastAPI, React, an AI reasoning layer, a git-backed audit trail, auth, call observability, cost controls, and automated **eval-regression testing** in CI. Feature set spans **plan / takeoff canvas, comparable-based predicted cost ranges, a materials catalog, voice site-walk capture, and RFI generation**.
- Designed and shipped a **production agent tool surface** an AI agent uses to actually perform takeoffs, not a chat wrapper: **mutation-safety gating** on every write, an **orchestration verb** binding multi-step agent actions to source-document ground truth, and latency budgets engineered against a real infrastructure ceiling. Deterministic **symbol and device counting** commits what it is certain of and **withholds what it is not**, so an estimator audits a short exceptions list instead of trusting a total.
- **Prioritize from where the cost actually is, read out of real bid data**. On a site-work analysis across five projects and ~\$26.8M of scope, itemized bids put erosion control **under 2%** of the package and storm drainage at **25%** (structures alone 48.8% of storm cost), while earthwork carried **2.75x the bid dispersion** of any other category. Cut the erosion-control feature I had planned and shipped storm structure counts and cut/fill by station instead. Thirteen years of pricing real bids is what makes that read fast.
- **Killed my own feature on the evidence**. Ran a controlled evaluation of a wall-detection method across three commercial jobsets; the pairing signal fired on **94.2% of impostor pairs**, so it could not ship. Reported the negative result with the method instead of the feature. (*Ship / no-ship decided on measured failure-mode cost.*)
- **Proved the engine generalizes outside my own trade**. Built a vector extractor against **two civil site-work sets drawn by different engineering firms** and scored it honestly — how much original linework lands inside a usable chain, not finished-chain length — at **86% and 75%**. The two firms' files disagreed with each other, and that disagreement changed the design.
- Released **OpenTakeoff** — an open-source (**Apache-2.0**), **AI-native takeoff & estimating platform** under the Kentucky AI org: a **spatial-geometry engine built from scratch in an HTML5 canvas** (no CAD library), exposed through a **40-tool MCP server** (npm: opentakeoff-mcp, registry-listed, A/A on Glama) plus a developing SDK for third-party agent evaluation. **Three production integrations** beyond SFG, incl. **Vellum** — a civil/structural markup tool built on the engine by a licensed Civil PE at an **ENR Top 500** design firm, outside flooring entirely.
- Maintain it as a real open-source project rather than a code drop: **137 stars, 58 forks, 9 outside contributors with merged commits**, a public roadmap and issue tracker, issues scoped for first-time contributors, a weekly release cadence, and a published **Academy** curriculum. **I coordinate live fixes with contributors across several countries** — triage, review, release — which is shipping to a schedule with volunteers who owe me nothing. Google is now the repo's **#1 referrer** on zero ad spend.
- Trained and evaluated **vision-language plan-reading models** on a proprietary corpus of professionally marked-up drawings (markup-as-label supervision); the production estimating fine-tune serves the department at **~12% median error** on held-out bid prediction. Per-vertical **LoRA adapters** via **on-policy distillation**, served quantized on Apple Silicon (MLX).
- Built the **data pipeline behind the tuning**: non-destructive curation that normalizes **~3,000 files** across three inconsistent internal sources — filename drift, misfiled documents, template-reuse artifacts — into a corpus that **self-verifies bid sheets against proposals to the penny** with per-record confidence grading.
- **The estimating community will actually show up for this work**. Opened one call to practicing estimators for help covering trades outside my own and got **seven volunteers across six CSI divisions in thirteen hours** — mechanical, concrete, thermal, electrical, and full-GC estimators specifying what their takeoff has to catch. Recruiting real design partners out of a skeptical trade is the part of this that does not come from code.
- Stood up the industry data integrations the products run on: certified **STACK CT API** access and a **Dodge API** engagement, plus applied R&D published under Kentucky AI.
- Closed the company's **first enterprise license** — a recurring contract with Summit Flooring Group, where Spline is deployed and actively running bids.

Project Manager · Habitat Louisville — Louisville, KY

Aug 2022 – Dec 2022

- Managed ground-up residential / commercial projects for a **woman-owned, minority-owned (WBE/MBE)** GC startup; oversaw **7 employees** plus rotating subcontractor crews.

Project Manager · Highland Hardwood Flooring — Louisville, KY

Oct 2021 – Aug 2022

- Supervised **7 installation and refinishing crews**; managed scheduling, vendor relationships, material acquisition, walk-throughs, punch lists, and permitting across residential hardwood work.

Raw Materials Manager · Anderson Wood Products — Louisville, KY

Apr 2020 – Oct 2021

- Owned acquisition and inventory of all raw lumber for a hardwood manufacturer; built cost-accounting, forecasting, and inventory systems in Excel and Access; managed B2B supplier relationships and reconciled logistics billing. (*The corporate / manufacturing leg most flooring estimators never get.*)

Owner / Operator · Floor-de-lis Hardwood and Flooring — Louisville, KY

Apr 2016 – Apr 2020

- Founded and ran a residential / commercial hardwood flooring company — **\$200K+ annual revenue, 7 tradespeople**; owned P&L, sales, estimating, procurement, project management, and field operations. Notable: PGA offices Louisville, Derby City Chop Shop.
- Full ownership of moisture mitigation, concrete / substrate prep, takeoffs, and customer / vendor relationships.

Job Site Foreman · Precision Hardwood — Louisville, KY

Apr 2013 – Apr 2016

- Ran installation crews and on-site logistics; managed ~\$20K monthly material throughput and worked directly with customers to scope and finalize installations.

APPLIED RESEARCH & WRITING

- **Markup-as-Label, First Empirical Test: Fine-tuning a VLM on Historical Professional Takeoff Geometry** — SSRN preprint: exact-supervision labels reconstructed from historical takeoff files; zero-shot frontier-VLM baseline of 0/61 rooms and 0/73 linear runs on real commercial finish plans; fine-tuning gains reported with frozen holdouts and paired-bootstrap confidence intervals; negative results published alongside wins. *SSRN abstract 7118624 · 2026 · patent-pending method (U.S. provisional 64/110,144)*
- **The Turbo Framework: Operational Exhaust as a Primary Supervisory Signal** — whitepaper + field note on a closed-loop architecture for domain-specific model optimization: on-policy distillation, verifiable rewards (RLVR), early-trajectory data selection, and a mode-seeking reverse-KL objective, anchored in Division 9 takeoff. *kentucky-ai.com · 2026*
- **Forging Local Models: Distillation, LoRA & the 128 GB Envelope** — field method for distilling expert judgment into a knowledge graph and serving per-vertical LoRA adapters quantized on Apple Silicon (MLX). *kentucky-ai.com · 2026*

CORE SKILLS

Preconstruction	Full bid lifecycle (intake → go/no-go → takeoff → vendor RFQs → proposal → award handoff) · go/no-go scoring matrix (author) · quantity takeoffs · bid leveling of out-of-state subcontractors · value engineering · conceptual / design-stage budgets · subcontract review, redline & signature authority · change orders · estimated-vs-installed closeout feedback · estimator training & onboarding
Implementation & Training	Software deployment into a live estimating workflow · user requirements from working estimators · SOPs, hands-on training & change management · adoption governance and spend controls · customer-facing walkthroughs and demos · fluent daily in Autodesk Construction Cloud (BuildingConnected Bid Board Pro / TradeTapp, Takeoff, Docs), Procore, STACK CT, Bluebeam, MeasureSquare
Applied ML Method	Markup-as-label supervision (patent-pending) · author of the Turbo Framework · eval-first / verifier-before-training sequencing · frozen-holdout evals with paired-bootstrap CIs · append-only experiment registry · on-policy distillation · per-vertical LoRA fine-tuning · as-built outcome feedback loops
AI & Software	Production AI across Anthropic, OpenAI (ChatGPT / Codex) & local open-source models · agent tool-surface design (40-tool MCP server, mutation-safety gating, orchestration verbs, latency budgeting) · fine-tuning (LoRA / QLoRA) · knowledge distillation & RLVR · vision-language models · FastAPI · React · architectural PDF parsing & spec extraction · eval-harness design & observability (LangFuse)
Infra & Data	Self-hosted multi-machine cluster (Tailscale) · Docker / OrbStack · quantized local inference on Apple Silicon (MLX / Ollama / LM Studio) · Postgres / n8n pipelines · API data integrations (STACK CT, Dodge) · git-backed audit / versioning · messy-data curation — multi-source reconciliation, self-verifying cross-checks
Open Source & Web	OpenTakeoff (Apache-2.0 · 137 stars / 58 forks · 9 outside contributors · MCP server on npm, registry-listed · Academy curriculum · external adopters incl. a production fork) · Hugging Face model publishing · Kentucky AI brand + live sites · DNS / CDN / SSL (Cloudflare / Netlify)
Domain	13+ yrs commercial flooring · Division 9 · NWFA Certified Installer · advanced floor prep and moisture mitigation · robotics-ready & healthcare flooring requirements · senior living, multifamily, hospitality, retail, healthcare, and industrial project types

EDUCATION

UC Berkeley — Coursework in Acoustical Engineering

Berkeley, CA · 2008–2010

CERTIFICATIONS

NWFA Certified Installer (2015) · NWFA Job Site Safety Certification (2015) · Loba Wakol Connected Systems (2016) · Loba Wakol Advanced Color School (2016)