

# Sam Trouy

Full-Stack Software Engineer

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## Summary

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Full-stack software engineer and startup founder with experience delivering complex web applications from concept to production. Proven track record as founding engineer at a seed-stage startup and creator of innovative prototypes in AI-assisted development. Skilled in Go, TypeScript, React, and AWS, with an entrepreneurial mindset and systems-thinking approach.

## Experience

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### Founder & Software Engineer - LanguageLabs ..... Apr 2023 – Oct 2024

*Bootstrapped AI-focused startup, leading R&D and rapid prototyping of agentic systems, including proof-of-concepts integrating LLMs with self-modifying instructions*

- Founded and bootstrapped startup exploring next-generation AI agent architectures
- Researched meta-learning systems for LLMs, developing theories on systematic node insertion based on Hebbian learning principles
- Prototyped agentic AI systems with self-modifying instruction sets and reasoning capabilities
- Explored adaptive neural network construction where learning ability improves through acquired knowledge
- Built proof-of-concept systems demonstrating AI agents that could think before responding
- Made strategic decision to transition back to employment after taking time off

### Founding Software Engineer - SheetRocks ..... Apr 2021 - Apr 2023

*First hire at seed-stage startup building web-based spreadsheet app (sheet.rocks)  
Stack: Golang, React, TypeScript, Jest, Docker, MongoDB, Redis, AWS, GitHub*

- Developed and documented Golang REST API serving frontend application and backend calculation endpoints
- Managed blue-green deployment pipeline to AWS EC2 instances with S3 storage, using bash scripts for automation
- Implemented NoSQL data architecture using Redis for spreadsheet data storage and MongoDB for user metadata
- Extended core calculation engine in Golang and owned key features: sorting algorithms, formula range selection, cross-sheet references
- Developed macro system enabling custom Python execution within spreadsheet environment using Docker containers
- Optimized React rendering for large datasets: virtual scrolling, selective updates
- Managed deployment workflow: approved merge requests, monitored dev deployments, oversaw production releases
- Provided on-call support for production environment and handled customer issue resolution

## Experience (continued)

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### Independent Developer ..... Oct 2020 - Apr 2021

*Self-taught transition into software development to pursue remote tech career*

- Explored modern programming languages: started with Rust, transitioned to Go after finding better language fit
- Built portfolio website using Go and vanilla JavaScript, deployed to AWS as demonstration of cloud deployment skills
- Created web scraper with custom instruction language for automated purchasing during COVID supply shortages
- Developed real-time market monitoring bot for client project: scraped financial data and triggered Discord alerts based on market conditions

### Wire Tech & Sales Consultant - AT&T ..... 2017-2020

*Wire technician in Memphis, promoted to In-Home Expert (management-level sales), later retail sales consultant in Atlanta*

- Diagnosed and resolved complex telecommunications infrastructure issues
- Promoted to management-level In-Home Expert role with expanded sales responsibilities
- Consistently met sales targets while maintaining high customer satisfaction scores

### Various Retail Sales Positions ..... 2011-2017

*Initial foray into working world at Best Buy, Bed Bath & Beyond, Dillard's*

- Specialized in technical product areas: computing hardware, digital cameras, mobile devices
- Completed advanced Nikon photography and video training program

## Technical Skills

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**Languages:** Go, TypeScript, JavaScript, Elixir, Ruby (explored), Rust (explored), Lisp dialects

**Frontend:** React, Alpine.js, HTML/CSS, vanilla JavaScript

**Backend:** Node.js, Go web frameworks, RESTful APIs

**Databases:** MongoDB, Redis, PostgreSQL

**Cloud & DevOps:** AWS, Docker, Vercel, CI/CD pipelines

**Tools:** Git/GitHub, Jest (testing), Linux, NixOS

**AI/ML:** LLM integration, prompt engineering, AI-assisted development workflows