

Senior software engineer, who drives revenue. Built infrastructure processing \$100M+ annual transaction volume, scaled MRR 10x, and built multiple startups. I ship technical solutions to business problems, from rapid prototypes to production scale.

2024 – 2025 AI Engineer

San Francisco, AI Startup

Built LLM pipeline for AI-generated micro-course content; owned full lifecycle from customer discovery through production deployment.

- Designed and iterated agentic content research system: evaluated LangChain, Pinecone, Chroma, pgvector; built integrations for direct OpenAI API function access
- Built semantic similarity clustering for content expansion filtering -solved AI output collapse problem that was degrading course quality
- Prototyped intelligent A/B routing for content personalization;
- Led customer development interviews to identify content generation as highest-leverage AI application

2021 – 2024 Senior Software Engineer, and Growth

San Francisco, Hugo Insurance, remote

"At Hugo, we ruthlessly prioritize building and delivering features that will be valuable to our members. Joel did an incredible job identifying & understanding what would be valuable and then leading its development, pulling-in subject matter experts from other domains as he went and delivering precisely what was needed to maximize ROI. He never shied away from complex work. I'm proud to have had him as a fellow Hugonaut." - David Bergendahl, CEO

Built core systems, products, and user acquisition engine for an insurance product processing \$100M+ annual premiums for 300,000 policyholders, while maintaining a 4.8/5 rating on Trustpilot (95th percentile for insurance industry).

- Proposed, and built the system for driving profitable growth for the company: moving the needle from LTV << CAC to LTV > CAC & played instrumental role in driving MRR from \$1M to \$10M
- Built detailed understanding of segment-specific performance of user cohorts, predicting LTV& cash conversion cycle, and specific ROI on marketing spend per channel
- Led integrations into partnering marketplaces for getting best lead prices, and driving volume
- Discovery, proposal, and implementation of decoupling ticket load from customer volume increase for CS: intelligent knowledge base buildout, using a combination of KB+search, and instant action gadgets, deflecting tickets at top-of-the-funnel, resulting in logarithmic growth of ticket volume under linear growth of customer volume.
- Led, and built company initiatives: endorsements (reducing support cost), coverage extension (increasing LTV), geolocation of customer at policy activation (reducing fraud)
- Structured and streamlined the interview process, interviewed, evaluated, and hired engineering candidates:
 - Pitched& framed the role for, and interviewed Head of Data Science; interviewing & recruitment for 2x engineers

- Led and built integrations with: Zendesk, Google ads, Safeauto, Compare, Insurify, Everquote, Transparently, Trellis, Telnyx, Mediaalpha, Snowflake, Lexisnexis, Telnyx

2017 – 2019 VP of Engineering

San Francisco, GYANT Inc

"I think that your work at GYANT has been phenomenal. You're one of the driving forces behind our (in my eyes) strong productivity, and your active mind often challenges us to do things better and better. I really, really am happy to work with you." - Pascal Zuta, CEO

Built an AI chatbot platform for providing 4M+ primary care diagnosis for 2M+ people.

Technical leadership:

- Defined and set up a high-velocity engineering culture: by defining values, trade-offs, strategy, resulting in a lean, high-performance engineering team. Supported employees in growth by cross-training, and peer mentorship.
- Defined and developed hiring process, responsible for full-pipeline hiring, on-boarding, expectation setting; resulting in recruitment, and retention of 1 senior IC engineer, 1 junior engineer
- Sales support: responded to RFIs, developed customized value proposition, and produced compelling demos, resulting in closing ~\$1.5M worth of sales
- Negotiated with translation suppliers, and leading delivery process for localization, resulting in German, and Arabic language translations of the system

Engineering:

- Built a HIPAA-compliant EHR, and treatment system, which enabled providers to evaluate, treat, and prescribe low-acuity cases (flu, cough) within 2 minutes
- Led the development of the 4 then-flagship products of the company
- Created a content editor, which dropped new chat content creation by 90% (from ~5 hours per flow to ~30 minutes per flow)
- Built, and scaled a Kubernetes cluster to handle ~10K patients' per day, roughly 8-9 million requests per day
- Led the development of the Web-based chat interface for AI bot
- Set up our remote team for success by writing 180 out of the 210 pages of documentation on the system

2016

San Francisco, Contract, Stealth music startup

Wrote a natural language processing algorithm, which processed the US copyright office database (120GB+ data), and resolved names, and addresses from natural text to single structured records. Integrated into company's license delivery service.

Technologies used: Python, Natural language processing, Google App Engine & datastore

Key business result: dropped music license research cost from .5-2 days each to single database lookup.

2013 – 2016

Founder, lipreading.org

"This was a wonderful program. I am a teacher of children with hearing loss. Your lipreading program was used regularly with the students I see 1:1, 2-3 days per week at the middle school level. I will purchase this program again in the future. " -Sandra Swaciak, customer

Designed, built, and marketed an educational product serving over 60,000 users, generating \$40,000 annual recurring passive revenue.

- Ideated, evaluated, conceptualized the idea of online lip reading education for the deaf & hard of hearing; performed primary, and secondary research, leading to a successful market positioning
- Designed, specified, and developed the full product: Ubuntu/NGINX/PHP/MySQL, shipping the first MVP within 3 months of project start
- Managed the recruitment of multiple actors, designers, and key suppliers for video production
- Quality assurance: came up with an algorithm, which sorted videos by how "lip-readable" they are, leading to a 20% boost in retention
- Built A/B testing framework, performed 38 A/B test, resulting in ~300% MRR increase
- Designed, and built integrations with: Stripe, Paypal, WebRTC, AWS S3/Cloudfront, Adwords
- Marketing: GTM: influencer linkback outreach emails, resulting in 15 external reviews; stable: "evergreen content" (top 3 google SERP), Adwords; resulting in a monthly ~10K visitors.
- Customer support: set up a scalable system which handled customers' topmost problems; recruited CS person for handling everything else, eliminating the product being dependent on me.

Expertise

- Fluent interfacing with all corporate functions (marketing, datascience, product, C-level, engineering, finance). High initiative and agency. Owner mindset.
- Full lifecycle product: conceptualization, specification, scoping, delivery, ops/maintenance
- AI/LLM: OpenAI API, Chroma, pgvector, prompt engineering, AI-first developer workflow
- Tech, BE: Node.js/typescript, Python, 8 other languages
- Tech, FE: React/Preact/redux/ HTML/CSS/usability and responsive design skills
- Infra: Kubernetes/AWS/Docker
- Demonstrated ability to learn, and acquire new technologies, and skills as needed.
- Remote work: clear, efficient, and proactive communication, documentation, collaboration, mentoring
- Effective communication, getting things done, and lifelong learner

Education: Budapest Polytechnic, 2008, Artificial intelligence specialization

Publications: Mobile robot navigation using omnidirectional vision, 2006