Adrien David

Senior Software Engineer, Applied NLP · Orlando, FL (Remote) · adrien.h.david@gmail.com · linkedin.com/in/dsadrien · adrien.davidsivelle.com · Dual US/French citizen

SUMMARY

Senior software engineer with 13 years of production experience, including 10+ years building systems around applied NLP and language models. I design backend platforms that turn natural-language input into reliable software behavior: interpreting intent, grounding responses, and triggering real-world workflows. That work has shipped across hospitality automation, sales outreach, customer-support semantic search, and voice-led qualitative research.

EXPERIENCE

Lead Engineer — Labstr

Apr 2026 – Present · Remote · via Software 407 LLC

Voice-led AI qualitative-research platform for pharma: AI-conducted voice interviews with physicians and patients, automated transcription, theme extraction with verbatim support.

- Working on grounded factuality for automatic analysis of survey results, with a pipeline combining determinist checks and NLI models.
- Led R&D on theme detection in interview and survey results using embeddings and vector search: literature review through tech specs to initial implementation, structuring survey results for optimal ingestion.
- Contribute to application and backend development across the platform.

Fractional CTO & Lead Engineer — Hostvana

Oct 2019 – Feb 2022 · resumed Sep 2022 – Present · Remote · via Software 407 LLC

Configurable automation platform for vacation-rental property managers: NLP-driven guest messaging plus API integrations for smart locks, guest filters, upsells, cleaning schedules and supply management

- Sole technical owner alongside the CEO across two engagements spanning 6+ years: designed, built, maintained and evolved the platform end-to-end, setting pragmatic architecture from business needs, resource constraints and maintainability.
- NLP pipeline (Google NLP, Langue Translation, DeBERTa-based custom trained classifier, Contextualization, NLG with LLM stages and actions). Owned the classifier as production infrastructure: training image, classifier server, retraining workflow.
- Ran the full CI/CD, deployment and DevOps setup: server scaling, metrics reporting, dashboard monitoring and alerting.
- API integrations with property-management software, smart locks, payment systems, Google calendar, Twilio and more.
- Translated ambiguous business goals into product scope, balancing technical debt and time to market, and contributed to end-user pricing and marketing/positioning strategy with the CEO.

Independent Engineer — Coyle Acoustics Research Lab (Rollins College)

Oct 2025 – May 2026 · Orlando, FL · via Software 407 LLC

Designed and scheduling system for acoustic data-acquisition on rocket launch noise, synced with the LL2 database of space launches.

Software Engineer — LivePerson

Feb 2022 – Sep 2022 · Remote

Semantic search engine for knowledge retrieval.

- Designed, built and evaluated a semantic search engine pairing Transformer-based content encoding with vector search in Elasticsearch (with one colleague, end-to-end).
- Packaged and deployed it as an independent Python microservice on LivePerson's Kubernetes clusters; ran performance analysis to dimension the service for production load.

- Pre-release quality evaluation showed it outperformed the existing classifier-based and text-search retrieval - with none of the per-customer model training those systems require. The engine shipped to production shortly after my tenure.

Lead Backend Developer — Deeploop
Jun 2016 – Oct 2019 · Remote · Orlando, FL

AI-powered sales-automation platform.

- Led backend development (Python/Node.js) of a platform that acted on natural-language signals to time and automate prospect outreach, integrating with leading CRM, accounting and scheduling APIs.
- Managed one backend engineer; worked cross-functionally with the UI lead dev, product manager and CEO.

Adjunct Professor — Rollins College
Jun 2018 – Aug 2018 · Winter Park, FL

Taught two undergraduate evening CS courses (Hamilton Holt School)

- Introduction to Java
- Data Structures in Java.

Full-Stack JavaScript Developer — 360Learning
Mar 2015 – Oct 2015 · Paris, France

One of four JS engineers on a collaborative SaaS LMS; owned features across business logic, data models and front-end; shipped the platform's statistics module

Performance Analyst — Intel - Mobile & Communications Group
Sep 2013 – Jan 2015 · Sophia Antipolis, France

AUSY-employed junior consultant embedded full-time in Intel MCG's Power & Performance Software Architecture Team.

- Power & performance analysis of Intel Atom mobile platforms on Android/Linux.
- Co-designed and built a Python automation farm that scaled the team's growing PnP analysis workload.

Embedded Systems Engineer — CNRS — Laboratoire de Mécanique et d'Acoustique
Mar 2013 – Aug 2013 · Marseille, France

Final-year engineering internship in a Musical Acoustics research lab

- Designed and programmed lightweight embedded acquisition systems capturing musicians' playing parameters, replacing heavy, expensive lab equipment for acoustics researchers.

SKILLS

Applied NLP / Language systems: Transformer models, Embeddings, Vector search, LLM APIs, RAG, Classifier training, NLI / grounded-factuality evaluation, Watson NLP, Google NLP, Voice interfaces

Languages: Python, JavaScript, Node.js, TypeScript, Java, C, C++

Data & infrastructure: Elasticsearch, MongoDB, SQL, Kubernetes, Docker, GCP

Embedded & data acquisition: Embedded C, Acquisition systems

EDUCATION

Engineering degree, Master's level — École des Mines, France · Computer Science, New Technologies & Microelectronics (2010–2013)

National Chiao Tung University - Hsinchu, Taiwan · Exchange semester — M2M/IoT, middleware, SOA (2012–2013)

LANGUAGES

French (Native) · English (Fluent)