Juraj Hudák

Senior AI Engineer | AI Solution Architect

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juray.hudak@gmail.com Portfolio: voiceforge.biz | voyagier.biz | aiprocesy.eu
Automation & media: hireclaw.eu | aivideotalk.de
Salesforce: Trailblazer profile

Professional Summary

Senior AI engineer and solution architect combining nearly 20 years of enterprise software experience in Vienna's insurance sector with hands-on delivery of AI applications and business-process automation. Builds voice agents, retrieval-augmented generation (RAG) systems and API-connected workflows, combining enterprise software experience with hands-on independent product development. Recent work includes VoiceForge, the Voyagier travel concierge and an email-driven construction-budget pricing application that answers pricing requests automatically.

Technical Skills

- **AI applications:** LLM integration, LangChain, RAG, hybrid keyword/vector retrieval, embeddings, natural-language-to-SQL, conversational agents and speech processing
- **Development & data:** Python, FastAPI, C#/.NET, Java, JavaScript, SQL, PostgreSQL, pgvector, Microsoft SQL Server, SQLite, Supabase
- **Automation & integration:** n8n, REST/SOAP APIs, webhooks, Twilio, LiveKit SIP/WebRTC, ElevenLabs, Slack, Telegram, WhatsApp, Excel and Google Calendar
- **Delivery & platforms:** Docker, Linux, Git, automated testing, OAuth, Caddy, Salesforce Apex, SOQL/SOSL, Visualforce, Lightning Web Components, Flow, Salesforce DX and GitLab CI/CD

Professional Experience

Software Engineer — VIG IT – Digital Solutions GmbH

January 2023 – October 2025 | Vienna, Austria

- Developed and maintained insurance systems for Vienna Insurance Group companies across three countries.
- Designed AI demonstrations and prototypes for insurance use cases, including natural-language database querying, and connected them with SQL databases, APIs and enterprise systems.

Collective Insurance — Salesforce Group Insurance Platform with AI WhatsApp Sales Agent

Demonstration video

Designed, built and maintained a complete Salesforce-based group life and accident insurance product (PIA), from offer to policy, invoicing and collections, with an AI agent that sells through WhatsApp.

- **Offer-to-policy:** modelled leads, offers (Opportunity), policies (Asset) and products for Group Term Life and AD&D insurance; record-triggered Flows calculate the premium, generate the offer PDF and create the policy only after the offer is accepted.
- **Invoicing and collections:** custom `Movement__c` ledger for invoices and payments; an Apex trigger matches incoming payments against open invoices and locks posted amounts; Flows assign variable symbols, update invoices when headcount changes and create dunning letters.
- **Documents:** Visualforce and Apex generate offer, policy, invoice and dunning PDFs, available through quick actions and published via a public document URL.
- **AI WhatsApp sales agent:** Python agent on the OpenAI Assistants API (Heroku) explains products from policy documents, collects inputs, calculates the premium through function calls and creates the offer in Salesforce via a custom Apex REST API; customers retrieve offers and offer PDFs by phone number, and new leads get a WhatsApp welcome message through an asynchronous Apex callout (Queueable, Named Credential). The agent only prepares the offer; the policy is created after a person accepts it.
- **Platform and DevOps:** custom objects, page layouts, Lightning record pages, permission set and custom profile; English, German and Macedonian translations; scheduled Apex for integration-token refresh and Apex test classes; data migration

with SFDMU; Salesforce DX project with a GitLab CI/CD pipeline—every change was validated by deploying to a fresh scratch org, and manual production deployments ran all local Apex tests.

Technologies: Apex (REST services, triggers, Queueable, scheduled), Salesforce Flow, Visualforce, SOQL, Named/External Credentials, Salesforce DX/CLI, GitLab CI/CD, SFDMU, Python, OpenAI Assistants API, WhatsApp Cloud API, Heroku.

Software Engineer — twinformatics GmbH

February 2022 – January 2023 | Vienna, Austria

- Continued development and maintenance of enterprise insurance systems.

Software Developer — Camelot Informatik und Consulting GmbH

April 2006 – February 2022 | Vienna, Austria

- Built and maintained core insurance applications, including PIA systems, policy administration and point-of-sale solutions.
- Developed automated financial reporting, reconciliation and transaction-processing jobs, with data-warehouse support for reporting and decision-making.
- Implemented data-privacy-related changes in insurance platforms as part of GDPR requirements work.

Salesforce Development & Consulting

ACN Slovensko / Enehano | Project work, 2020–2022

- Contributed to Salesforce implementation for ČSOB Insurance, including claims-document generation using Apex and Visualforce.
- Developed REST/SOAP integrations, Lightning Web Components, business-process automation, reporting and data-migration workflows.

ACN Slovensko | Pro bono work from January 2022

- Supported Sales Cloud implementation, administration and integration with other systems using Apex and web services.

Salesforce Projects

Orders NTB — Notebook Ordering & Approval App (Salesforce DX)

- Designed and built a Salesforce app where employees request notebooks and managers approve or reject them, using a custom `Notebook_Order__c` object with a status lifecycle and validation rules, and `Notebook_Model__mdt` custom metadata for the catalog and pricing.
- Built a Lightning Web Component workspace backed by an Apex controller with unit tests.
- Implemented role-based access with Employee, Manager and Admin permission sets plus custom permissions controlling CRUD, field-level security and feature access.
- Packaged the solution as a Lightning app with tabs in a source-driven Salesforce DX project; documented requirement traceability, build plan and deployment/test gates.

Technologies: Apex, LWC, Custom Metadata, Permission Sets, Custom Permissions, Validation Rules, Salesforce DX.

Nonprofit Donor Data Migration & Automation (Salesforce NPSP + n8n)

- Migrated legacy donor and donation records (bank transfers, postal gifts and online card payments) from Google Sheets into Salesforce Nonprofit Success Pack.
- Built n8n workflows that watch the sheets and push rows into NPSP Data Import in throttled batches, write status back to the sheets, and load contacts in a separate flow first.
- The contact flow checks for an existing Salesforce match by name, city and email, then creates or updates the record; ambiguous cases go to an LLM agent (via OpenRouter) that returns structured output to help resolve duplicates and missing donor IDs.
- Extended DataImport and Contact with custom fields and a permission set; wrote an Apex Contact trigger handler that assigns a unique donor ID and generates a normalized, accent-free matching key, plus batch Apex for bulk cleanup between test loads. Deployed with Salesforce DX.

Technologies: Salesforce (Apex triggers and batch, NPSP Data Import, custom objects and fields, permission sets, SFDX), n8n, Google Sheets integration, data migration and deduplication, LLM-assisted data matching.

Selected Independent Projects — 2026

VoiceForge — AI Voice-Agent Platform

voiceforge.biz

- Built a Slovak-language voice-agent platform connecting real inbound phone calls through Twilio and LiveKit SIP to a Python/FastAPI orchestration layer.
- Integrated streaming speech recognition, text-to-speech and LLM responses, with interruption handling and transfer to a human operator; tested the call-to-transfer flow with real phone calls.
- Developed per-user document retrieval using hybrid keyword search and pgvector, allowing agents to answer from each customer's knowledge base.
- Added a multi-tenant web application with Google OAuth, document upload, call history, analytics and Google Calendar booking integration.

Stack: Python, FastAPI, Twilio, LiveKit, ElevenLabs, PostgreSQL, pgvector, Redis, Docker.

Voyagier — AI Travel Concierge

voyagier.biz

- Developed conversational travel-assistance workflows across web chat, Telegram and a WhatsApp integration using FastAPI, LangChain and LLM APIs.
- Integrated Duffel flight search in test mode, separating returned inventory from unavailable travel products; flight-search functionality does not imply live ticket booking.
- Implemented signed webhook validation, duplicate-message handling, asynchronous responses and per-user conversation history; added streaming replies and cancellation on Telegram.
- Built a Kotlin/Jetpack Compose Android client with voice input and text-to-speech support in English and Arabic.

Stack: Python, FastAPI, LangChain, Twilio, Telegram API, Duffel API, SQLite, Kotlin, Jetpack Compose.

Construction-Budget Pricing Automation

Production application | Email-driven Excel pricing

- Built an application that receives construction-budget request workbooks by email, prices the blank items automatically and replies with the priced Excel workbook and a summary of what was priced and what needs attention.
- Imports historical budgets into PostgreSQL and identifies prices from historical budgets and supplier data, combining exact/fuzzy matching with pgvector-based suggestions and AI-assisted item verification. Prices come from traceable source data —not model-generated estimates.
- Added unit and specification checks to distinguish transferable prices from reference-only suggestions, with source details and price differences visible in the Excel output; uncertain rows are flagged for human review with reasons.
- Built the mail gateway around the pricing engine: request queue, start-confirmation and result emails, and delivery safeguards.

Stack: Python, openpyxl, PostgreSQL, pgvector, LLM APIs, supplier integrations, email gateway.

OpenClaw & AI Media Projects

- Built n8n workflows for document ingestion and semantic retrieval, natural-language SQL queries, and Slack-based product-catalog lookup with Excel integration.
- **AI Video Talk — aivideotalk.de:** Developed an AI video-generation pipeline combining dialogue, speech synthesis and lip-sync with Slack/Telegram delivery and PostgreSQL project-state storage.
- **HireClaw — hireclaw.eu:** Built and operated a self-hosted OpenClaw stack for AI-agent orchestration, integrated with Dockerized n8n workflows, PostgreSQL, Redis and monitoring.

Education & Certifications

MSc — Control Engineering and Automation
Technical University of Košice, Slovakia | 1995–2001

Salesforce certifications: Administrator, Advanced Administrator, Platform App Builder, Sales Cloud Consultant, Platform Developer I and Platform Developer II.

Salesforce Trailblazer: salesforce.com/trailblazer/juray — Four Star Ranger, 491 badges.

Languages

Slovak: native | **English:** professional proficiency