NICOLAS BURGOS

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Software Engineer & Salesforce Consultant

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EXPERIENCE

Solution Architect & Developer, Salesforce

Servant – Remote | December 2024 – Present

- **Own the Salesforce architecture** for a faith-based nonprofit, leading hands-on development and translating requirements into scalable data models, security configurations, Flows, Apex, and LWCs while safely extending NPSP without breaking upgradability.

- **Productionize TaskRay for project workflows**, implementing templates, dependencies, and cross-object automation integrated with Flows, Platform Events, and Apex.
- **Implement Agentforce and Einstein AI integrations** with secure data flows, logging, and human-in-the-loop patterns to deliver measurable organizational impact.
- **Build workflow automations and integrations** with Microsoft 365, WhatsApp Cloud API, and Mailchimp, enforcing CI/CD practices, coding standards, and least-privilege security.

Consultant & Developer

Coastal Cloud – Remote | 2022 – Present

- **Led full-cycle delivery of Salesforce solutions** across Non-Profit, Health Cloud, Public Sector, and Data Cloud projects—collaborating with stakeholders to gather requirements, translate them into scalable technical designs, and implement secure, user-centric solutions.

- **Technical Lead – Unified Customer 360 Page -** Designed and implemented a Lightning Web Component–based page that brings together customer data from six separate Salesforce orgs and Snowflake, giving users a real-time, 360° view directly inside Salesforce. Led end-to-end delivery—including Apex services, Data Cloud pipelines, QA/regression, and production rollout—resulting in faster insights and reduced context-switching for business teams.

- **Engineered accelerator packages** for Licensing, Grants Management, Permitting, and Education Cloud— modularizing industry-specific processes to reduce implementation time, improve reusability, and maintain compliance with government and nonprofit standards.

- **Developed complex Experience Cloud sites** from the ground up, including multi-language support, dynamic visibility rules, custom Lightning Web Components (LWCs), and user journey optimization, enhancing both partner and public user experience.

- **Configured and maintained Salesforce org settings, roles, profiles, permission sets, and sharing models**, aligning system architecture with client business models and ensuring data integrity and security across multi-user environments.

- **Implemented Agentforce integrations**, enabling real-time lead creation from web and in-app messaging sessions, and designed flows for appointment scheduling and callback automation, increasing lead conversion rates and agent efficiency.

- **Designed robust reporting frameworks** using Reports, Dashboards, and Dynamic Gauge Charts—empowering clients to monitor SLAs, user engagement, and operational KPIs with drill-down analytics and scheduled reports.

- **Acted as key client liaison**, facilitating workshops, demos, and UAT testing cycles while adapting project scope to evolving client needs and maintaining alignment with Salesforce best practices and Agile delivery.

SELECTED ROBOTICS & AI PROJECTS

Zeroth-01 Push-Recovery & Controlled Kneel (2025) – RL controller for humanoid robot (MuJoCo + K-Sim, JAX)

• Implemented a GRU-based PPO policy with mixture-of-Gaussians actions for a 20-DoF humanoid, adapting K-Scale's ksim-gym-zbot template to ksim 0.2.10+ (API + RL shape fixes).

• Designed custom rewards (upright, forward velocity, gait timing, joint penalties) and laptop–optimized training config; improved total reward from $2.0 \rightarrow 2.2$–2.4 and forward velocity from $0.64 \rightarrow 0.78$ over ~550 steps on an M2 Air. GitHub

• Built TensorBoard-driven evaluation, demo GIFs, and a 5-page technical report documenting design, training behavior, and limitations.

https://github.com/nicolasburgosg/zbot-push-to-kneel

PERSONAL PROJECTS

Shorely (2025) (Mobile App) – Cross-platform mobile application providing real-time beach conditions to help users find perfect beach days. www.shorely.app

• Interactive Mapbox integration with real-time beach status updates
• User-generated condition reports with 6-hour time decay algorithm
• Favorites system with database-level constraint enforcement
• Bilingual support (Spanish/English) with i18next
• Guest and Google OAuth authentication with seamless data migration
• Tech stack: React Native, Expo, TypeScript, Supabase (PostgreSQL with PostGIS), Tamagui UI, React Context for state management

The app uses real-time subscriptions for live updates, implements proper RLS (Row Level Security) policies, and features a sophisticated navigation flow with bottom sheets and tab-based architecture.

Nanjung Ilgi Translation Pipeline (2025) (NLP/ML Pipeline) (Open-Source) – End-to-end system translating Admiral Yi Sun-sin's *Nanjung Ilgi* from Korean PDF into per-book English DOCX with cleaned TXT and manifests.
• Cloud Translation – Advanced (v3) batch document translation with PDF→DOCX conversion and GCS output manifests
• Per-book splitting (Book 1–7), **normalization** of ligatures/quotes, Hanja **annotation/replace** (RR + English glossary)
• Fully scripted pipeline (Makefile/CLI) with **idempotent** runs, run-prefix guardrails, and Storage/IAM setup
• Result: **1,545 pages translated, 0 failed**; seven organized packages ready for alignment/QA
Tech stack: Python, Google Cloud (Cloud Translation v3, GCS, gcloud/gsutil), PyMuPDF, python-docx, YAML/Makefile
https://github.com/nicolasburgosg/nanjung-ilgi

PodRush (2025) (AI Podcast Generator & Latest News TTS) (Mobile App) – Multilingual AI-powered podcast app that transforms text prompts and documents into personalized audio content with premium TTS voices.

• Dual-voice debate mode using Gemini 2.5 Flash multi-speaker synthesis
• Automated daily news bulletins via Vercel cron jobs and Perplexity API
• Minute-based subscription system with RevenueCat IAP integration, Document attachment parsing (PDF/DOCX/TXT) with AI summarization
• Complete EN/ES localization with i18n for all UI and generated content
• Tech stack: React Native, Expo, TypeScript, Vercel Functions, Supabase, OpenAI GPT-4o-mini, Google Gemini TTS, AI SDK

The app features an architecture with rate-limited APIs, cost monitoring automation, and plan-based content filtering with real-time usage tracking.

NenType (2025) (Web App) – HxH-inspired quiz that identifies your Nen discipline through values, vows, and puzzle-style questions. https://www.nentype.com/

- 20-question bank weighted toward personality/values; balanced scoring with Nen-adjacency smoothing and stricter Specialist gating

- Shareable results with **URL-safe base64** encoding (no database)

- **Google AdSense** side-rail monetization (manual responsive units), CLS-safe containers, `ads.txt`, and verification (head script + meta)

- Unit tests for scoring logic (Vitest), SEO/OG metadata, mobile-first layout

Tech stack: Next.js (App Router), React, TypeScript, Tailwind CSS, HTML5 Canvas (2D API), SVG, Web Audio API, Vercel, Google AdSense, Vitest

PRIVATE PROJECTS (NDA)

Private Platform (NDA) - Secure QR-Based Ownership Transfer System (2026)

• Designed secure ownership-transfer flows across Next.js web and Expo mobile clients backed by Supabase/Postgres.

• Implemented least-privilege hardening, one-time approval tokens, audit trails, and server-only API mediation for sensitive transactions.

Private Platform (NDA) - AI-Assisted Employee Enrollment and Support System (2026)

• Built a monorepo platform with Next.js web, NestJS/Fastify API, shared domain/contracts packages, and Postgres-backed worker services.

• Implemented OpenAI tool orchestration with guardrails, persisted traces, retryable job processing, and hybrid Vercel/Railway deployment.

Private Data Pipeline (NDA) - Protected-Area Parcel Intelligence Pipeline (2026)

• Built a resumable Python geospatial pipeline using Playwright, SQLite state, and KMZ/KML/GeoJSON processing.

• Automated parcel extraction, browser/API fallback logic, and spatial QA workflows using Shapely and PyProj.

TECHNICAL SKILLS

Languages:

- Spanish (Native), English (Fluent – C2), German (A2)

CRM Platforms:

- Salesforce CRM (Architecture, Development & Consulting)
- Salesforce Data Cloud
- Salesforce Platform, Flows, Embedded Messaging
- Lightning Web Components (LWC), Agentforce / GenAI Functions

Programming Languages:

- JavaScript, TypeScript, Apex, SQL, Python

Robotics & RL:
- MuJoCo, K-Sim (Humanoid & Z-Bot), JAX, PPO, TensorBoard

Web & Mobile Development:

- HTML, CSS, React, Next.js, React Native, Vite
- Tailwind CSS, Tamagui, Expo, Vercel Functions, Expo Router, React Navigation, i18next, Chart.js, GSAP

Backend / Data Systems:

- Node.js, Bun, NestJS, Fastify, Zod, Playwright, PostgreSQL, Supabase, Snowflake, SQLite
- GeoJSON, KML, KMZ, Shapely, PyProj

Version Control:

- Git

Cloud / Infrastructure:

- Vercel, Railway, Docker, Google Cloud Platform (GCP), Google Cloud Storage (GCS), Cloud Translation – Advanced (v3), gcloud / gsutil (CLI)

AI/ML:

- AI SDK, OpenAI tool orchestration, prompt/guardrail design, Text-to-Speech (TTS), Neural Machine Translation (NMT), batch document translation, RL for control (PPO with JAX).

Project Management:

- Agile (Scrum), Jira

EDUCATION – ONLINE

Salesforce Certifications

- Administrator, AI Associate & Specialist
- Service Cloud, Experience Cloud, Data Cloud Consultant, Salesforce Developer
- Public Sector Solutions Accredited Professional

Harvard University (CS50 Program)

- CS50: Introduction to Computer Science
- CS50's Web Programming with Python and JavaScript

Online Coursework (Robotics & Control)

- Modern Robotics: Mechanics, Planning, and Control (Northwestern, Coursera) – In progress
- Control Systems: Modeling of Dynamic Systems (CU Boulder, Coursera) – In progress