Nick Herrewyn

Engineering Manager — Conversational AI & Contact Center

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SUMMARY

Engineering Manager at NYS ITS, building conversational AI and contact center systems for New York State government since 2013. I lead teams of developers building virtual agents for NYS agencies, from public-facing chatbots to internal RAG-based knowledgebase tools. I specialize in Retrieval Augmented Generation, deterministic virtual agents that extend the role of a human representative, and the middleware and internal tooling that connect them to agency systems.

SKILLS

Languages & Frameworks: JavaScript, Node.js, Python

Platforms & Tools: Google Cloud Platform, Dialogflow CX, NICE CXone, Amazon Web Services, Oracle CRM, Git, GitHub, GitLab

Product & Engineering Practices: RESTful API Integration, Product Driven Software Development Lifecycle (SDLC), Contact Center Administration, Supervision & Mentoring, Executive Reporting, Generative AI, Conversational Design

WORK EXPERIENCE

Engineering Manager

2026 – Present

NYS ITS | Chief Digital Office | Communication Services

- Lead teams of developers and contract staff building reusable, accessible, and affordable software products for NYS agencies
- Drive adoption of advanced generative AI agentic workflows & contact center modernization
- Steer team's roadmap for AWS Connect by creating repeatable & standardized infrastructure-as-code deployments for various products

Supervising Developer

2023 – 2026

NYS ITS | Chief Digital Office | Communication Services

- Led a team of developers on omnichannel virtual agent design, development, and deployment for New York State public-facing services
- Delivered 5+ production chatbots from concept to completion using Dialogflow CX and Generative AI technologies
- Integrated virtual agents with Oracle CRM and other systems via RESTful APIs, enabling data lookups and personalized interactions
- Achieved 25%+ call deflection by deploying telephony bots that resolve common questions and look up caller status

Developer

2022 – 2023

NYS ITS | Contact Center Support and Development

- Designed, deployed, and maintained cloud-based contact center solutions for NYS agency clients
- Stood up 6+ new contact centers while concurrently supporting and maintaining a portfolio of 21 active contact centers
- Reduced deployment time and improved uptime by developing boilerplate templates containing all core contact routing logic

Contact Center Administrator

2013 – 2022

NYS DTF | Contact Center Division | Contact Center Services

- Administered and maintained NICE InContact CXONE contact center platform serving NYS Department of Tax and Finance
- Deployed and managed NICE Engage call recording application for compliance and quality assurance
- Delivered executive-level reporting on call center performance, capacity, and service levels
- Supported a contact center handling more than 1 million calls/year across 400+ agents

NOTABLE PROJECTS

Generative AI Virtual Agent — AI Assist

Technologies: Dialogflow CX, Google Cloud, Python, RAG, Vertex AI

Designed and built AI Assist, an internal knowledgebase tool deployed across two NYS agencies that enables contact center administrators to upload curated agency PDFs as grounding material for a Gemini-powered virtual agent. Agents receive fast, accurate, source-grounded answers to internal questions in real time, reducing reliance on supervisors and deep research while keeping responses grounded to official agency content. Agency administrators are able to maintain the knowledge using internal management and testing tooling.

Deterministic Virtual Agent — Wanda

Technologies: Dialogflow CX, Google Cloud, Node.js, Twilio, BigQuery

Wanda is a deterministic virtual agent (VA) serving NYS Department of Health customers who utilize or seek WIC benefits. The VA guides users to fast answers about WIC eligibility and services and handles referral submissions directly to local WIC offices. A notable technical challenge was configuring the Twilio SMS integration, including campaign registration.

References available upon request.