Posit Generative AI Solutions

Summary

Posit provides a range of tools and LLM-related packages for both R and Python. The most general-purpose packages are ellmer (R) and chatlas (Python), which handle connecting to LLMs and managing communication. To build a chatbot in Shiny, use shinychat, available in both R and Python. Posit also offers packages for retrieval-augmented generation, natural language processing, and the Model Context Protocol.

Access the power of LLMs in R and Python

The ellmer package simplifies LLM integration in R. Ellmer provides a consistent interface to multiple LLM providers, with features like streaming, tool calling, and structured data extraction.

- Documentation
- Release Blog Post

The chatlas package simplifies LLM integration in Python. Chatlas offers a unified interface across LLM providers for tasks like streaming chats, tool calling, and structured output.

- Documentation
- Release Blog Post

The ragnar package enhances LLM performance with Retrieval-Augmented Generation (RAG) in R, which allows you to retrieve relevant external data to inform responses.

- Documentation

Shinychat and ui.Chat

Shiny components integrate interactive chat interfaces into Shiny applications with a dedicated UI component.

- Shinychat Documentation
- ui.Chat Documentation

querychat

querychat is a drop-in component for Shiny that allows users to query a data frame using natural language.

- Documentation

Automate and enhance data science tasks with GenAI

The chores package automates repetitive coding tasks with LLM-powered assistants. Use customizable shortcuts to trigger code rewrites and enhancements directly in your R environment.

- Documentation
- Technical introduction

The gander package enhances data science workflows in RStudio and Positron with intelligent, in-line LLM chats. Gander integrates Ellmer chats into your projects, providing context-aware responses and streaming results directly into your documents.

- Documentation
- Technical introduction

The mall package applies LLM predictions to data frames efficiently. Process rows with predefined prompts for batch analysis in both R and Python.

- Documentation
- Technical Introduction

lang

The lang package translates R function help documentation on-the-fly to other languages such as Spanish or French. Lang overrides help functions to provide instant translations within RStudio and Positron.

- Documentation

IDE Integrations

Positron Assistant

Experimental feature in Positron 2025.06.0

Positron Assistant transforms Positron into an AI-powered data science workspace, deeply integrated with your tools and workflows while leveraging enterprise-grade LLM providers.

- User Guide

Shiny Assistant

Shiny Assistant accelerates Shiny development with an AI assistant. Get help with Shiny questions, create applications from scratch, or modify existing code in R and Python.

- Shiny Assistant
- Release Blog Post

GitHub Copilot

GitHub Copilot enhances coding productivity with AI-powered code suggestions directly within RStudio.

- Documentation
- Release Blog Post

chattr

The chattr package allows you to interact with LLMs directly from RStudio. Submit prompts from scripts or use the Shiny gadget for interactive conversations.

- Documentation
- Technical Introduction

Enhance your LLM workflow

The btw package helps you describe your computational environment to LLMs.

- Documentation
- Technical Introduction

The vitals package provides a framework for large language model evaluation in R.

- Documentation
- Technical Introduction

The mcptools package implements a Model Context Protocol (MCP) server for your R sessions.

- Documentation

Enable effective observability

otel

Use the otel package as a dependency if you want to instrument your R package or project for OpenTelemetry.

otelsdk

Use the otelsdk package to produce OpenTelemetry output from an R package or project that was instrumented with the otel package.

AI demonstrations, use cases, and best practices

- Harnessing LLMs for Data Analysis | Led by Joe Cheng, CTO at Posit
- Easy tool calls with ellmer and chatlas
- Natural language data science with RStudio and Databricks
- How to use natural language data science with RStudio and Amazon SageMaker

- Announcing secure AI-Assisted data science in R with Posit and Snowflake Cortex
- AI tool built with Posit decreases unexpected deaths of hospitalized patients by 26%
- Generate data with an LLM and ellmer
- Text Summarization, Translation, and Classification using LLMs
- The potential for AI-powered Shiny app prototyping with Shiny Assistant
- Running AI/LLM Hackathons at Posit: What We've Learned
- Trail Running Meets Data Science: Adventures with LLMs and Race Stats

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