Unlock the best of your organization

AI-native, local-first workspace platform for modern business operations

Michael A. Libio
Founder | CPTO
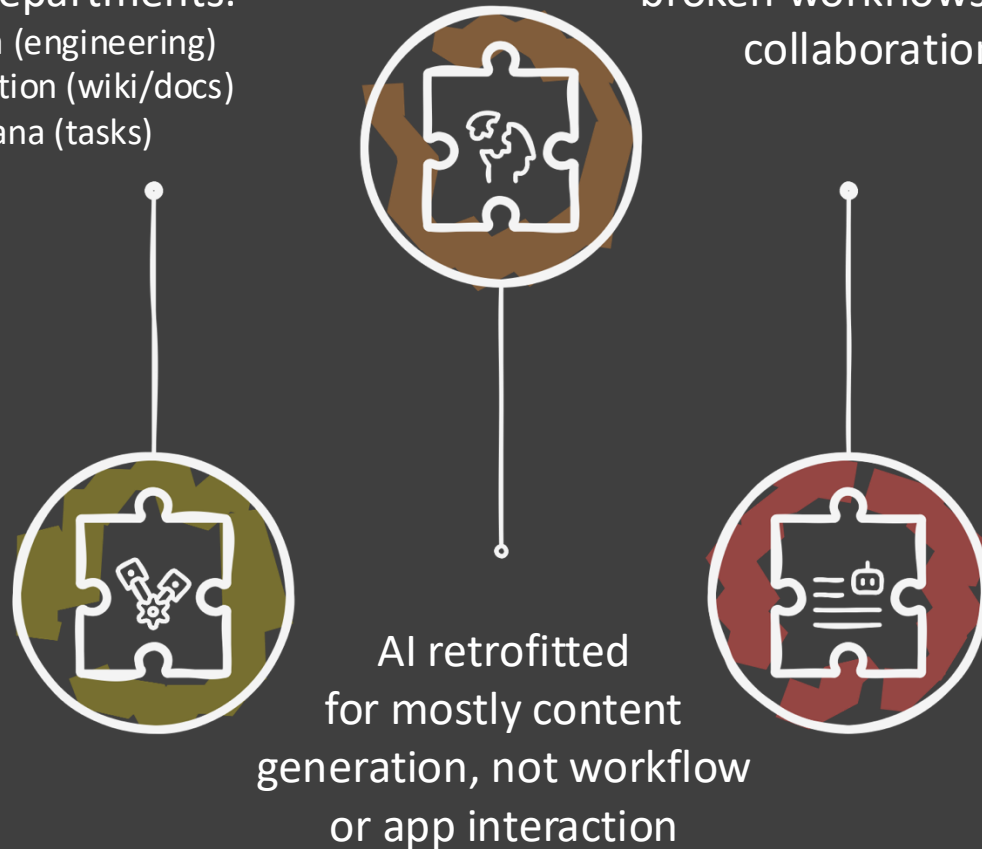https://www.linkedin.com/in/malibio/

The Big Problem

Disconnected tools across departments:
- Jira (engineering)
- Notion (wiki/docs)
- Asana (tasks)

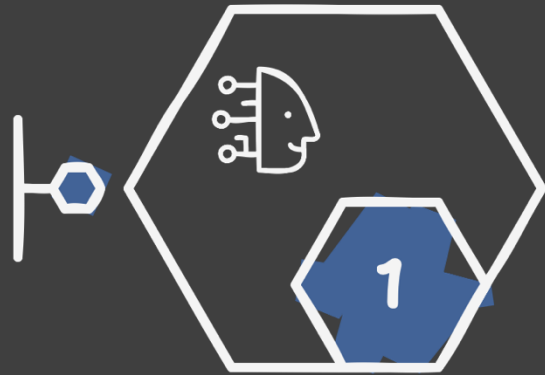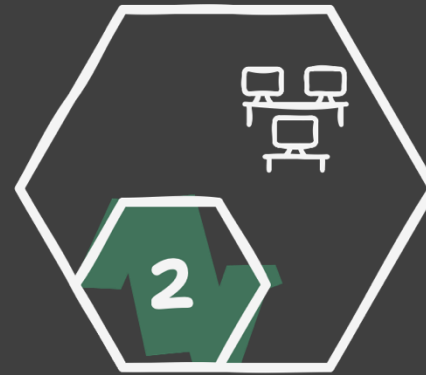Fragmented knowledge, broken workflows, poor collaboration

AI retrofitted for mostly content generation, not workflow or app interaction

Solution: NodeSpace.ai

AI-native platform with natural language interface
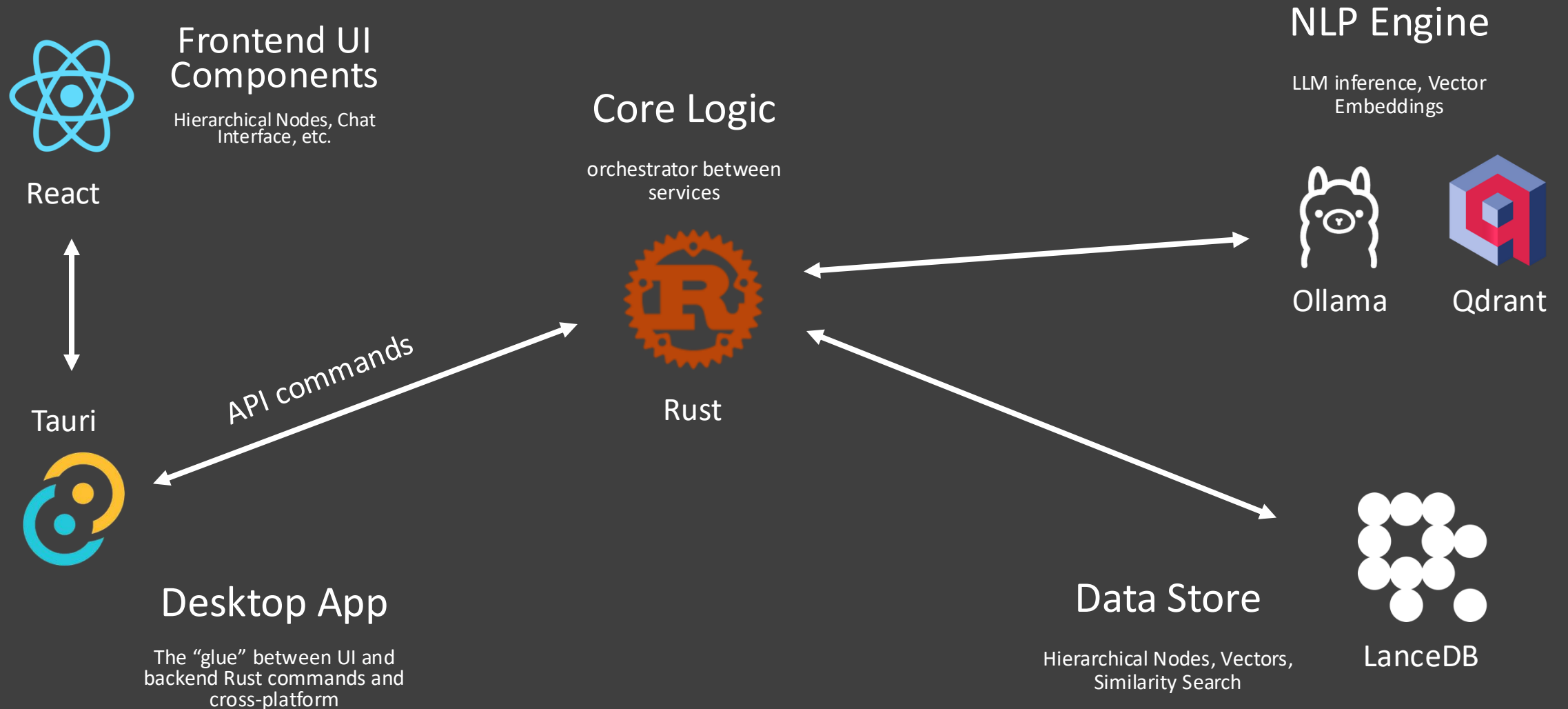
1

2

Unified, modular workspace

Local-first architecture for privacy, performance, and offline access

3

4

Encrypted collaboration by default

Technical Summary

Frontend UI Components

Hierarchical Nodes, Chat Interface, etc.

React

Tauri

Desktop App

The "glue" between UI and backend Rust commands and cross-platform

API commands

Core Logic

orchestrator between services

Rust

NLP Engine

LLM inference, Vector Embeddings

Ollama   Qdrant

Data Store

Hierarchical Nodes, Vectors, Similarity Search

LanceDB

NLP Engine & Vector Storage

- Easy model switching
- Automatic GPU detection
- Rapid experimentation

Ollama

LLM: gemma3:12b
- Multimodal (text + image)
- Efficient memory usage
- Optimized for single GPU
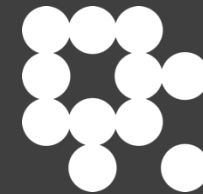
Qdrant

Text: BAAI/bge-small-en-v1.5
Vision: Qdrant/clip-ViT-B-32-vision
- ~2-5ms per text embedding
- "Visual intelligence" – contextual relationships (visual & text)
- Single search interface

LanceDB

- Sub-10ms vector similarity search
- Purpose-built for vector + metadata use case
- Embedded execution
- Rust-native Tauri Integration

ONNX + FastEmbed
- Apple MPS support & CUDA
- Avoids Compilation Issues

Data Pipeline

Product Launch Campaign Strategy

- This comprehensive product launch plan provides the strategic framework, tactical execution details, and success measurement criteria necessary for achieving market leadership in the sustainable professional products category.

id	type	content	parent_id	root_id	before_sibling_id	created_at	mentions	metadata	embedding_vector
50fab33e-d0f8-4af	text	# Product Launch Campaign Overview	6/26/25	6/26/25	NULL	2025-07-03T23:50:4	[LIST]	NULL	VECTOR_DATA
9f3693a9-42ea-47	text	This comprehensive campaign document ou	50fab33e-d0f	6/26/25	NULL	2025-07-03T23:50:4	[LIST]	NULL	VECTOR_DATA
a1b2c3d4-5e6f-78	text	## Launch Overview	50fab33e-d0f	6/26/25	9f3693a9-42ea-478	2025-07-03T23:50:5	[LIST]	NULL	VECTOR_DATA
b2c3d4e5-f607-89	text	**Product**: EcoSmart Home Automation S	a1b2c3d4-5e	6/26/25	NULL	2025-07-03T23:50:5	[LIST]	NULL	VECTOR_DATA
c3d4e5f6-0718-90	text	**Launch Date**: September 15, 2025	a1b2c3d4-5e	6/26/25	b2c3d4e5-f607-890	2025-07-03T23:50:5	[LIST]	NULL	VECTOR_DATA
d4e5f607-1829-01	text	**Campaign Duration**: 12 weeks (Septem	a1b2c3d4-5e	6/26/25	c3d4e5f6-0718-901	2025-07-03T23:50:5	[LIST]	NULL	VECTOR_DATA
e5f60718-293a-12	text	**Total Budget**: $275,000	a1b2c3d4-5e	6/26/25	d4e5f607-1829-012	2025-07-03T23:50:5	[LIST]	NULL	VECTOR_DATA
f607182a-3b4c-23	text	**Primary Objective**: Achieve 25% marke	a1b2c3d4-5e	6/26/25	e5f60718-293a-1234	2025-07-03T23:50:5	[LIST]	NULL	VECTOR_DATA
0718293b-4c5d-34	text	## Executive Summary	50fab33e-d0f	6/26/25	a1b2c3d4-5e6f-7890	2025-07-03T23:50:5	[LIST]	NULL	VECTOR_DATA
18293b4c-5d6e-45	text	The EcoSmart launch represents a pivotal m	0718293b-4c5	6/26/25	NULL	2025-07-03T23:50:5	[LIST]	NULL	VECTOR_DATA
293b4c5d-6e7f-56	text	## Target Audience	50fab33e-d0f	6/26/25	0718293b-4c5d-345	2025-07-03T23:50:5	[LIST]	NULL	VECTOR_DATA
3b4c5d6e-7f80-67	text	**Primary Demographics**:	293b4c5d-6e	6/26/25	NULL	2025-07-03T23:50:5	[LIST]	NULL	VECTOR_DATA
4c5d6e7f-8091-78	text	- Age: 28-45 years	3b4c5d6e-7f8	6/26/25	NULL	2025-07-03T23:50:5	[LIST]	NULL	VECTOR_DATA
5d6e7f80-91a2-89	text	- Income: $75,000-$150,000 annually	3b4c5d6e-7f8	6/26/25	4c5d6e7f-8091-789a	2025-07-03T23:50:5	[LIST]	NULL	VECTOR_DATA
6e7f8091-a2b3-9a	text	- Education: College degree or higher	3b4c5d6e-7f8	6/26/25	5d6e7f80-91a2-89al	2025-07-03T23:50:5	[LIST]	NULL	VECTOR_DATA
7f8091a2-b3c4-ab	text	- Location: Urban and suburban areas	3b4c5d6e-7f8	6/26/25	6e7f8091-a2b3-9ab(	2025-07-03T23:50:5	[LIST]	NULL	VECTOR_DATA
8091a2b3-c4d5-bc	text	## Marketing Budget Breakdown	50fab33e-d0f	6/26/25	293b4c5d-6e7f-5678	2025-07-03T23:50:5	[LIST]	NULL	VECTOR_DATA
91a2b3c4-d5e6-cc	text	**Digital Advertising**: $65,000	8091a2b3-c4	6/26/25	NULL	2025-07-03T23:50:5	[LIST]	NULL	VECTOR_DATA
a2b3c4d5-e6f7-de	text	- Social Media Advertising: $25,000	91a2b3c4-d5	6/26/25	NULL	2025-07-03T23:50:5	[LIST]	NULL	VECTOR_DATA
b3c4d5e6-f708-ef	text	- Search Engine Marketing: $30,000	91a2b3c4-d5	6/26/25	a2b3c4d5-e6f7-def0	2025-07-03T23:50:5	[LIST]	NULL	VECTOR_DATA
c4d5e6f7-0819-f0	text	- Display and Retargeting: $10,000	91a2b3c4-d5	6/26/25	b3c4d5e6-f708-ef01	2025-07-03T23:50:5	[LIST]	NULL	VECTOR_DATA
d5e6f708-192a-01	text	**Video Production**: $45,000	8091a2b3-c4	6/26/25	91a2b3c4-d5e6-cde	2025-07-03T23:50:5	[LIST]	NULL	VECTOR_DATA
e6f70819-2a3b-12	text	**Influencer & Partnership Marketing**: $35	8091a2b3-c4	6/26/25	d5e6f708-192a-012	2025-07-03T23:50:5	[LIST]	NULL	VECTOR_DATA
f708192a-3b4c-23	text	**Public Relations & Events**: $25,000	8091a2b3-c4	6/26/25	e6f70819-2a3b-1234	2025-07-03T23:50:5	[LIST]	NULL	VECTOR_DATA
708192a3-b4c5-34	text	**Marketing Technology & Tools**: $10,000	8091a2b3-c4	6/26/25	f708192a-3b4c-2345	2025-07-03T23:50:5	[LIST]	NULL	VECTOR_DATA
08192a3b-4c5d-45	text	## Campaign Management	50fab33e-d0f	6/26/25	8091a2b3-c4d5-bcd	2025-07-03T23:50:5	[LIST]	NULL	VECTOR_DATA
8192a3b4-c5d6-56	text	**Campaign Management**: 40% of marke	08192a3b-4c5	6/26/25	NULL	2025-07-03T23:50:5	[LIST]	NULL	VECTOR_DATA
192a3b4c-5d6e-67	text	**Performance Marketing**: Full-time focus	08192a3b-4c5	6/26/25	8192a3b4-c5d6-567	2025-07-03T23:50:5	[LIST]	NULL	VECTOR_DATA
92a3b4c5-d6e7-78	text	## Key Performance Indicators	50fab33e-d0f	6/26/25	08192a3b-4c5d-456	2025-07-03T23:50:5	[LIST]	NULL	VECTOR_DATA

Smart Context Engine

Meaningful Semantic Embeddings
- Individual Nodes: not enough
- Siblings: helps
- Parent(s): a little better
- Root Node: bigger picture!

Challenges:
- What happens when the related node has changes?
- Architected to allow for seamless monitoring of changes in any of the related nodes (above)
- Invalidates the embeddings (to be stale)
- Running process that refreshes embeddings

Prompt Engineering

Phase 1 (Too Brief)

```
Context: {truncated_context}

Question: {query}

Answer:
```

Phase 2 (Too Verbose)

```
Based on the following context, please provide a
detailed and comprehensive answer:

Context: {truncated_context}

Question: {query}

Please provide a thorough response that:
- Directly answers the question using the context
- Explains the reasoning behind the answer
- Includes relevant details and implications
- Uses a helpful and professional tone

    Answer:
```

Phase 3 (Too Dry)

```
Based on the following context, answer the question
clearly and concisely:

Context: {truncated_context}

Question: {query}

Provide a direct answer with brief supporting
details. Be helpful but concise.

Answer:
```

Phase 4 (Good enough!)

```
Using the context below, provide a helpful answer
that's both informative and conversational:

Context: {truncated_context}

Question: {query}

Answer directly but include relevant context that
helps explain the 'why' behind the information.
Keep it engaging and professional.

Answer:
```
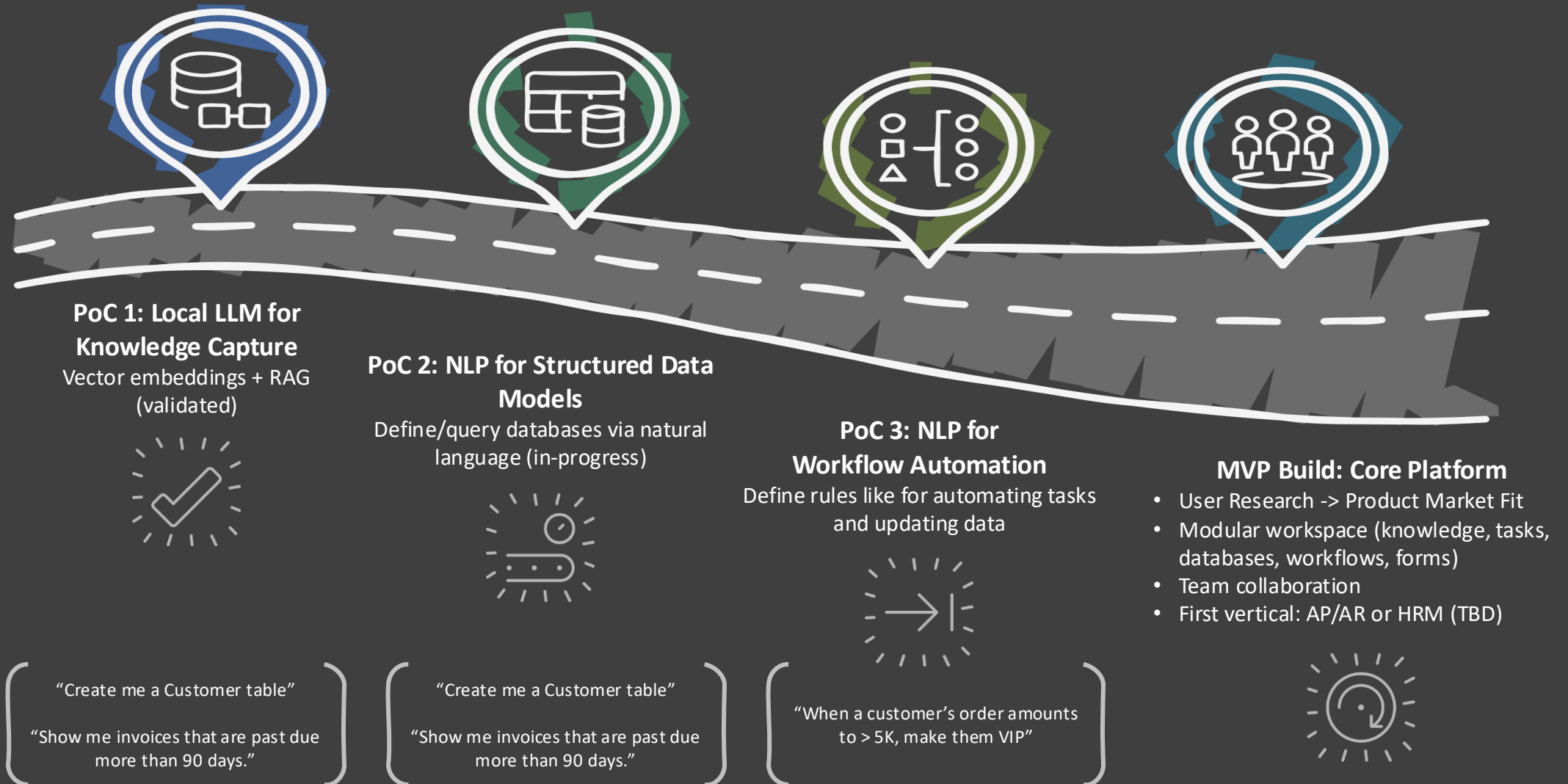
Demo

Where Are We Now and Where Are We Going?

PoC 1: Local LLM for Knowledge Capture
Vector embeddings + RAG (validated)

PoC 2: NLP for Structured Data Models
Define/query databases via natural language (in-progress)

PoC 3: NLP for Workflow Automation
Define rules like for automating tasks and updating data

MVP Build: Core Platform
- User Research -> Product Market Fit
- Modular workspace (knowledge, tasks, databases, workflows, forms)
- Team collaboration
- First vertical: AP/AR or HRM (TBD)

"Create me a Customer table"

"Show me invoices that are past due more than 90 days."

"Create me a Customer table"

"Show me invoices that are past due more than 90 days."

"When a customer's order amounts to > 5K, make them VIP"

The Team & Ask

Michael A. Libio
Founder | CPTO

- Over 15 years of product & engineering experience

- Ex-McKinsey Product Leader (New Ventures Technology group)

- Knowledge Management expert

- Experience from startups and corporate environment

Potential
Founding Engineers

- Domain expertise (i.e. Finance, HR, Sales & Marketing)

- Previous startup experience

Looking for:

- Early pilot customers (in HR, Finance, Creative Agencies, etc.)

- Pre-seed capital (for MVP development)