

ARIA: Advanced Requirements Intelligence & Analytics

**Team: Crackers
Date: Demo Day 2025**

**Automating objective prioritization for 50-100+
requirements**

Problem Statement

The Challenge with Requirements Prioritization

Subjective Decision-Making

Leads to team conflicts and delays.

Manual Processes

Do not scale for more than 20-30 requirements.

Labor-Intensive Discussions

Without objective metrics.

Inconsistent Results

Among different stakeholders.

Lack of Reproducibility

In prioritization decisions.

Lack of Traceability

In prioritization justification.



Customer Description

Who Needs ARIA?



Product Managers

Managing complex product backlogs.



Business Analysts

Working on medium-sized projects (50-100+ requirements).

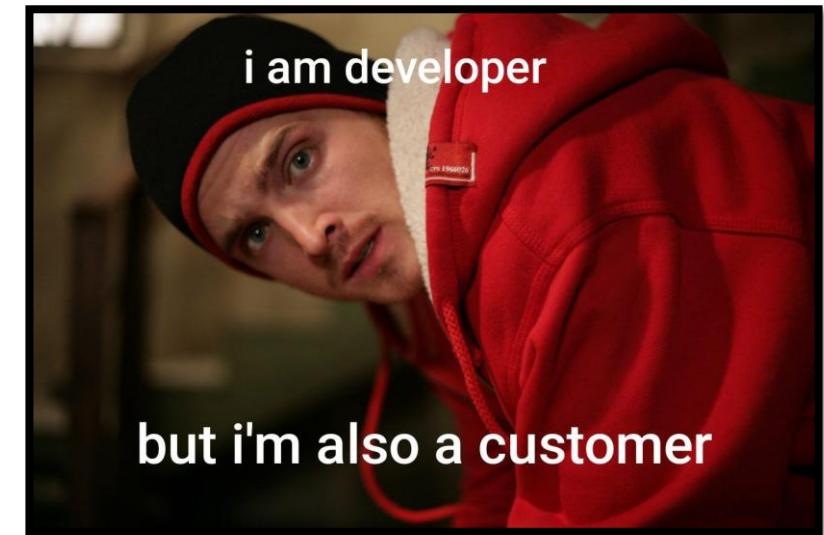


Technical Leads

Coordinating development priorities.

Pain Points:

- Wasting time on endless prioritization meetings
- Team conflicts due to subjective opinions
- Scaling problems with growing sets of requirements
- Lack of transparency in the decision-making process



Solution Overview

ARIA: AI-Powered Multi-Criteria Prioritization



**Single CSV Upload
Objective Scores
Comprehensive Report**



**Results in less than 5
seconds for 100+
requirements**



**Transparent Methodology
with Explainable AI
Justification**



**Export-ready reports (CSV,
HTML,PDF) for stakeholders**



Zero configuration for first use

Methodology Part 1: Evaluation Criteria

Business Value

Impact on business objectives

Cost

Implementation complexity and resources

Risk

Technical and business risks

Urgency

Time sensitivity and deadlines

Stakeholder Value

Importance to key stakeholders

Additional Context:

- Requirement Types: Functional Requirements, Non-Functional Requirements
- Requirement Categories (Feature, Bug, Compliance, Enhancement)
- Weighted scoring across all criteria
- ML-enhanced objective analysis

Stakeholder Analysis integration



Methodology Part 2: AI Analysis

01

Multi-criteria analysis

Using weighted scoring algorithms.

03

Priority score

Scale from 0 to 100.

05

Confidence level

AI's certainty in the evaluation.

02

Machine learning models

For objective requirement assessment.

04

Rank

Order from 1 to N.

06

Justification

Explainable insights for each evaluation.

Key Advantage:

Reproducible and transparent prioritization process.

Requirements Elicitation

1. CSV/Excel Upload

- Bulk import from existing requirement repositories
- Supports standard formats (ID, Title, Description, Category)
- Requirement validation and error handling
- Compatibility with requirement specification formats

2. Manual Entry UI

- User-friendly interface for collecting requirements
- Real-time requirement validation
- Support for various requirement sources

Flexibility:

- Support for multiple requirement sources
- Easy integration with existing requirement management workflows
- Support for metadata to track requirements



Requirements Elicitation

Evaluations Value - Part 1

Why ARIA Matters

Transparent metrics

Clear, reproducible scoring system

Reduced subjectivity

AI-driven objective analysis

10x faster

From hours to seconds

Scalable

Handles 50-100+ requirements effortlessly

Conflict resolution

Data-driven decisions reduce team friction

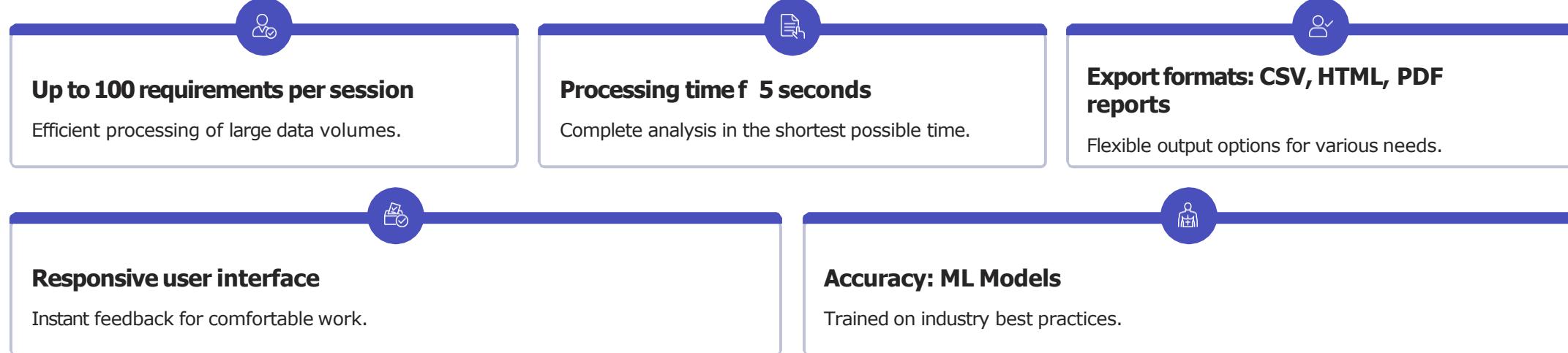
Business Impact:

- Time savings on prioritization meetings
- Better resource allocation based on objective priorities
- Improved stakeholder alignment through transparent stakeholder analysis
- Requirements traceability for audit and compliance



Evaluation's Value - Part 2

Performance Goals and Achievements



Quality Metrics

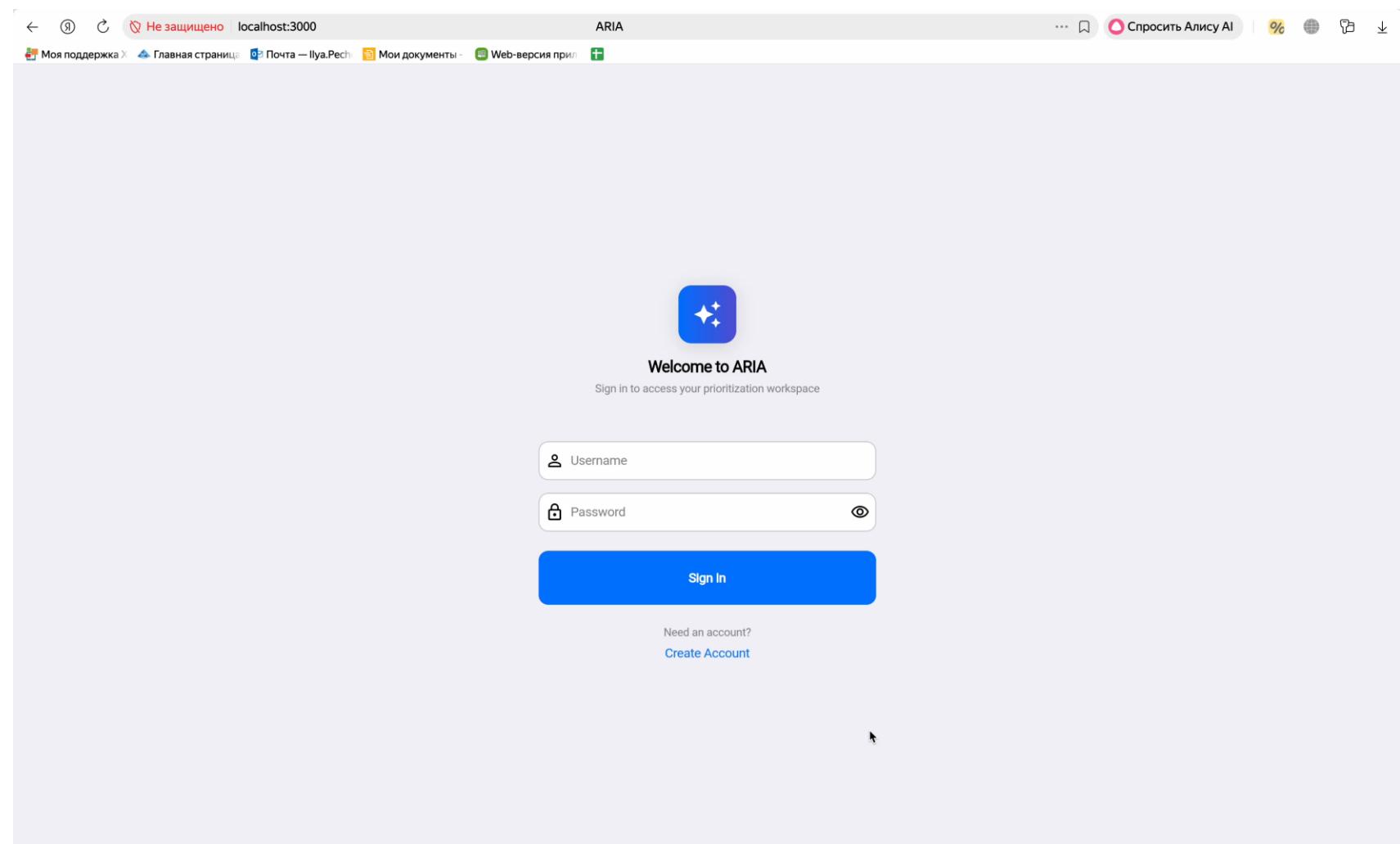
- Reliable evaluation with confidence indicators
- Comprehensive reporting with visualizations
- User-friendly interface with minimal learning curve
- Requirement validation against quality attributes
- Support for non-functional requirement evaluation





Live Demo

See ARIA in Action



The screenshot shows a web browser window with the URL `localhost:3000`. The title bar reads "ARIA". The page features a blue starburst icon and the text "Welcome to ARIA". Below it, a subtext says "Sign in to access your prioritization workspace". There are two input fields: one for "Username" with a user icon and another for "Password" with a lock icon and an eye icon. A large blue "Sign In" button is centered below the fields. At the bottom, there's a link "Need an account? Create Account". The browser's address bar shows several tabs, including "Моя поддержка", "Главная страница", "Почта — Ilya.Pech", "Мои документы", and "Web-версия прил".

Client Feedback

Message from customer

1. How do you rate the result of working with the team?

To rate the results from 1 - 10, **I would rate it 10.**

2. What did you like most about the work?

The work is highly organized, and the product delivery is impressive.

3. What did you dislike or what would be worth improving?

It's good that **the team understood the idea about the product**. As a general suggestion, the team should conduct more meetings with clients to ensure they are all on the same page, thereby avoiding confusion and misunderstandings.

4. **Was there anything that surprised or disappointed you?**

After seeing the product, **there isn't any**. But maybe after deploying the product on my end would.

5. What would you like to add or change to our product/service?

I would like to add more models to it. And extend roles, and add more requirement gathering process features.

6. Do you plan to continue working with the product

Yes, **I plan to continue the product, probably adding more features** and making it more suitable for my other products.

Naveed Zafar,
Customer



Tech Stack

Technology Foundation

1

Frontend

Flutter 3.24.3 - cross-platform framework

BLoC - state management pattern

Material Design 3 - modern user interface components

Apple-inspired UI - clean, intuitive design

2

Backend

OpenAPI 3.0.3 - REST API specification

8 Endpoints - full functionality coverage

RESTful architecture - standard integration patterns

3

Codebase

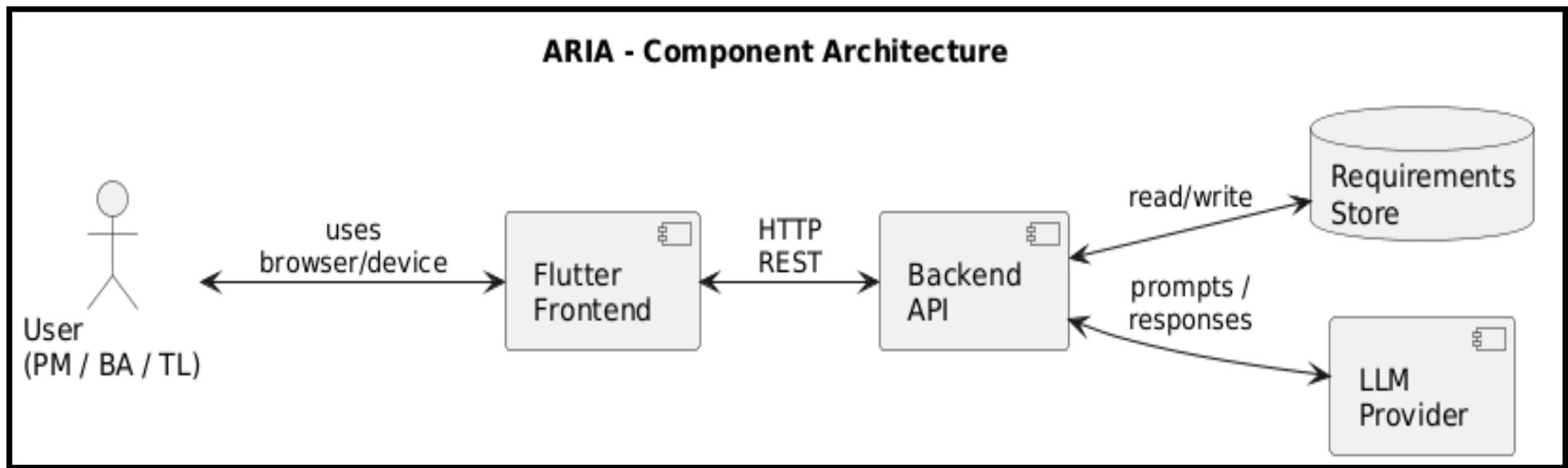
Dart (69.5%) - frontend development

Python (27.1%) - backend and machine learning models

JavaScript (2.5%) - additional tools

Architectures

Components



Implementation Status Roadmap

Current / Future Development

V1.0 (Current Release)

- Frontend application complete
- OpenAPI specification
- Finalized Core prioritization engine operational



V2.0 (Planned)

- User authentication system
- Customizable criteria weights
- Prioritization history & versioning
- Enhanced requirements traceability
- Stakeholder analysis dashboard



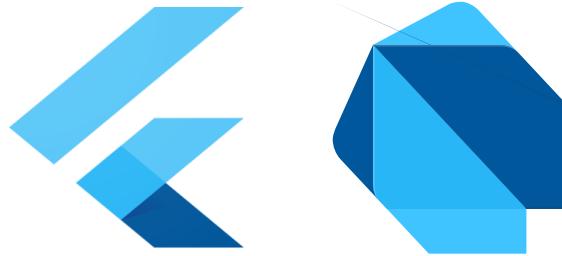
V3.0 (Future Vision)

- Advanced ML models with learning
- Multi-user collaboration features
- Integrations (Jira, Azure DevOps, etc.)



Team and Acknowledgements

Crackers Team



Frontend Development

Flutter and UI/UX

Timur

Dmitry

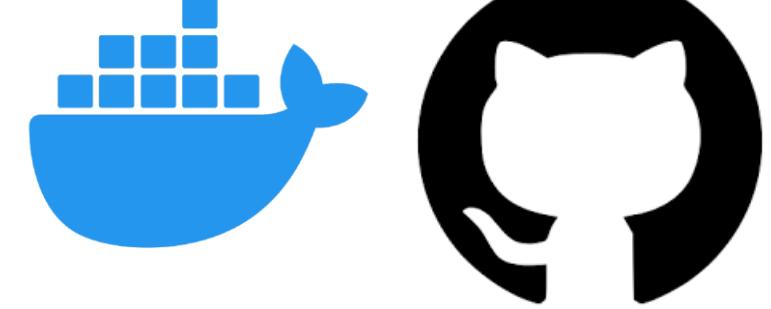


Backend Development

API and ML Integration

Ilya

Gleb



PM / DevOps

Product Strategy and Infrastructure

Aizat

Marat

Questions?

Team: Crackers Team

Project: ARIA - Advanced Requirements
Intelligence & Analytics

**Thank you for your
attention!**

