RMIT UNIVERSITY School of Science, Engineering & Technology

FRIENDS

AI-POWERED ACADEMIC TALENT FINDER

SUPERVISORS   Dr. Tri Dang   Dr. Thanh Pham

AUTHORS
Ly Minh Hanh   s3979290@rmit.edu.vn   Nguyen Minh Khai   s3995223@rmit.edu.vn
Vu Minh Ha   s3978681@rmit.edu.vn   Nguyen Dai Thanh   s3921846@rmit.edu.vn
Le Dang Quang   s3977794@rmit.edu.vn

BACKGROUND & MOTIVATION

Recruiting academic talent is uniquely challenging for higher education institutions because conventional platforms such as LinkedIn do not capture **research-focused metrics**, like publications or journal rankings—important data for evaluating an academic's research abilities.

To address this issue, we are developing an **AI-driven** academic talent finder platform to streamline recruitment. This tool enables recruiters to quickly identify researchers with strong publication records, making the hiring process more efficient, saving costs and time for the corporation.

OBJECTIVES

- **Enhance Recruitment Efficiency** – Streamline candidate search by consolidating academic profiles, reducing manual effort.
- **Ensure Authenticity of CV Claims** – Verify candidate's publications with trusted databases to ensure accuracy and credibility.
- **Offer Versatile Tools** – Recruiters can save, compare, and export profiles to PDF or Excel for easier evaluation.

SYSTEM ARCHITECTURE
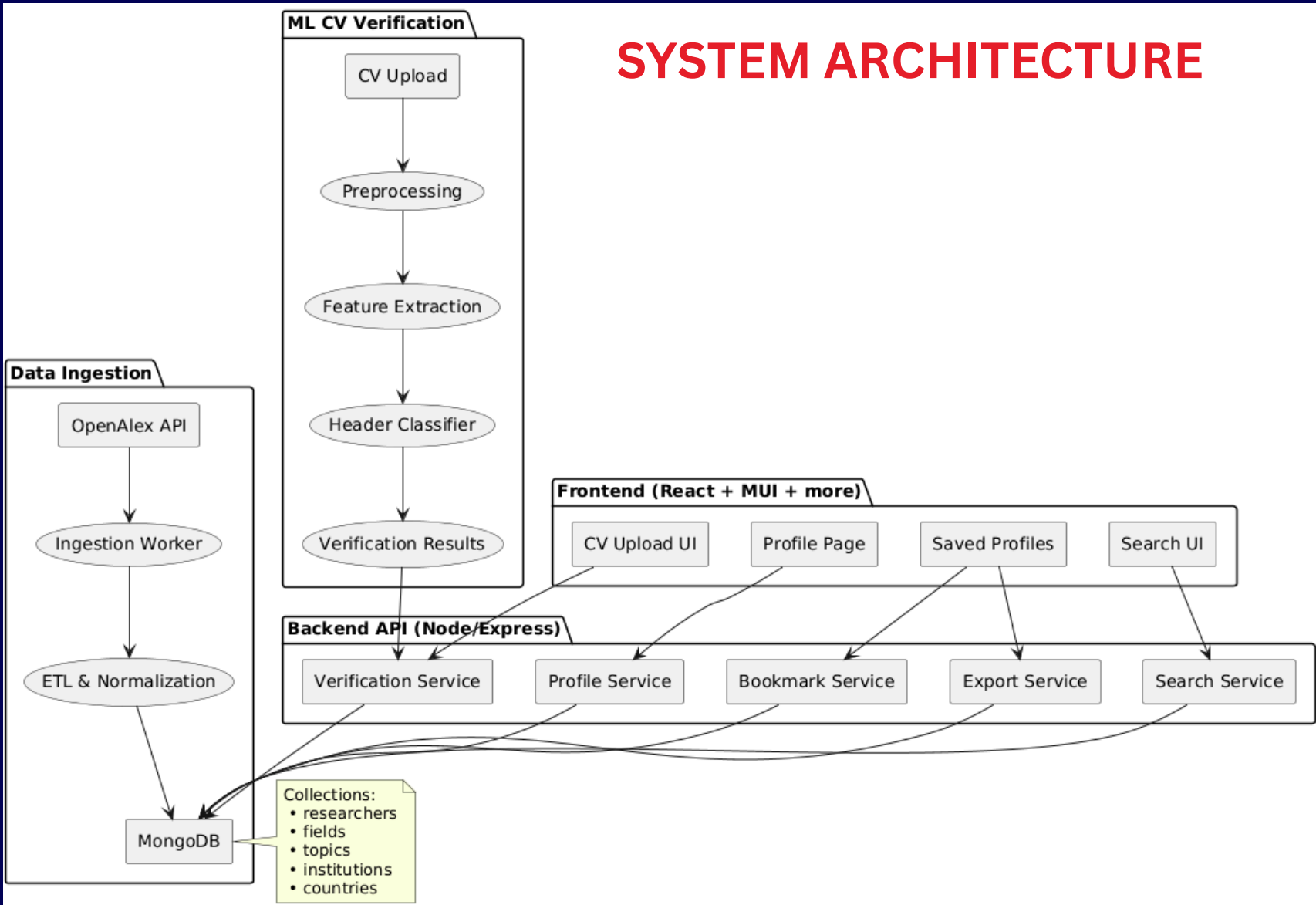
METHODOLOGY

Machine Learning Model Development:
- Build an ML pipeline to detect and extract the "Publications" section from uploaded CVs.
- Techniques Used: TF-IDF/embeddings + Logistic Regression/SVM

Database & Search Development:
- Schema: MongoDB collections with indexed fields (name, expertise, metrics, affiliations).
- Search Functionality: Full-text search, filtering (expertise, institution, h-index) and sorting (name, citations).
- Profile Retrieval: Backend services query MongoDB and external APIs if needed to fetch and display the researcher data to users.
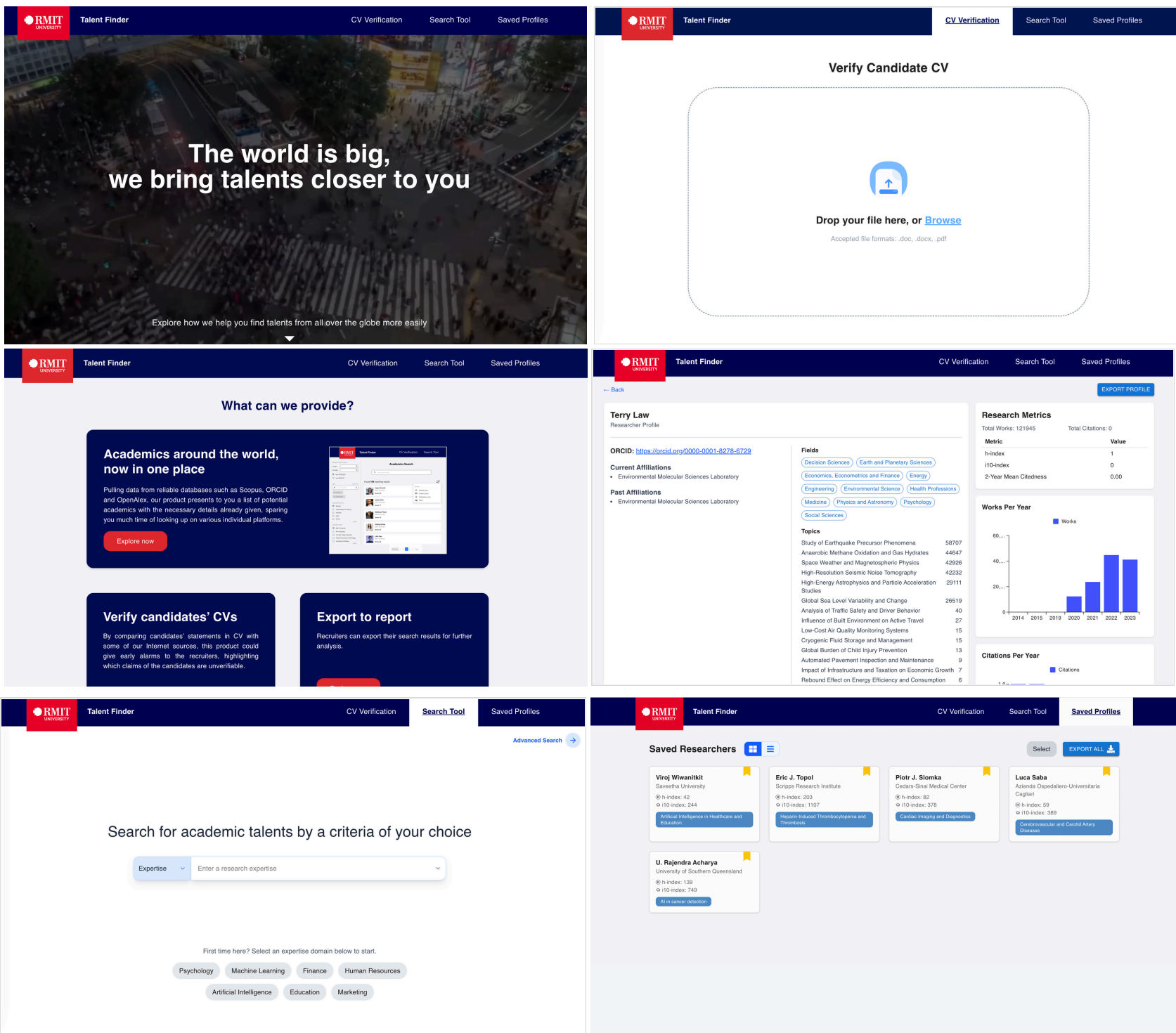
KEY FEATURES

- **Search Tool:** Allow recruiters to search for candidates matching with their requirements, for example working in Vietnam.
- **Profile Page:** Display researcher details in a structured way, showing information such as their publications, research metrics or affiliation history.
- **CV Upload:** Allow recruiters to upload candidate' CV for ML-based verification of their publication claims.
- **Bookmark & Export:** Recruiter can save researchers to personal lists or export results in PDF/Excel.

EXPERIMENTS & RESULTS

FUTURE WORK

- **AI/ML Scoring:** Develop ranking models that assess researcher fit based on relevance, impact, and collaboration potential.

- **Recommendation System:** Suggest related researchers, institutions, or collaborations using graph-based or embedding similarity methods.

- **User Management & Collaboration:** Add recruiter/team accounts, shared lists, and annotations to support group decision-making.

- **Integration & APIs:** Expand data sources (ORCID, CrossRef) and provide an API for third-party systems (HR, university platforms).