



Online Portfolio and Networking Platform for Creatives

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Abstract

Creative professionals such as photographers, illustrators, and designers require a way to showcase their work and connect with peers and potential clients, but generic social-media platforms are not optimized for structured portfolio presentation or creative-domain discovery. This paper presents a detailed technical treatment of an online portfolio and networking platform tailored to creative professionals, combining structured portfolio management, tag-based and visual-similarity discovery, and a connection-graph networking layer. Beyond a conventional system description, this paper grounds the discovery engine in classical content-based recommendation and image-retrieval literature, critically reviews prior creative-portfolio-platform and social-network-sites research, and formalizes the tag-overlap and engagement-weighted ranking function used for the discovery feed. A prototype was implemented using a React front end, a Node.js/Express backend, and a MongoDB data store with cloud-based media storage. Illustrative (simulated) evaluation indicates that tag-and-engagement-aware discovery ranking improves estimated content relevance over chronological feed ordering. All reported figures are simulation-based and explicitly labelled as such.

Index Terms— portfolio platform, creative networking, content-based discovery, social network sites, tag-based search, feed ranking.

I. Introduction

Creative professionals rely on visually rich portfolios to demonstrate their work to peers, collaborators, and potential clients, but general-purpose social-media platforms are typically optimized for short-form, chronological content rather than structured, browsable portfolio presentation, and their discovery algorithms are not tuned to creative-domain-specific signals such as medium, style, or technique tags.

Contributions:

- A structured portfolio-management schema tailored to creative-domain metadata (medium, style, technique).
- A tag-and-engagement-weighted discovery-feed ranking engine.
- A connection-graph networking layer supporting peer and client discovery.
- An illustrative evaluation of ranked discovery against chronological feed ordering.

II. Literature Review / Related Work

Approach	Key Technique	Limitation
Generic social-media platforms	Chronological or engagement-only feed	Not tuned to creative-domain metadata (medium, style, technique)
Static personal portfolio websites	Manually built, standalone sites	No built-in discovery or networking with other creatives
Stock-media marketplaces	Keyword search over licensed assets	Oriented toward licensing transactions, not portfolio/networking use
Proposed platform	Tag-and-engagement-weighted	Requires sufficiently complete



discovery + connection graph

tagging to rank well

III. System Requirements

Functional Requirements

- The system shall allow creatives to build a structured portfolio with tagged media assets.
- The system shall compute and display a ranked discovery feed combining tag relevance and engagement.
- The system shall support following, endorsing, and direct messaging between users.
- The system shall provide creator-facing analytics on portfolio views and engagement.

- The system shall support media upload and cloud-based delivery.

Non-Functional Requirements

- Discovery-feed ranking computations shall complete within 2 seconds for a catalogue of up to 100,000 portfolio pieces.
- The system shall support at least 5,000 concurrent users on the reference deployment configuration.
- User credentials shall be stored using industry-standard password hashing.
- The system shall maintain 99% uptime on the reference deployment.

IV. Implementation & Technology Stack

Component	Technology/Tools
Frontend	React.js portfolio management, discovery feed, and messaging UI
Backend	Node.js with Express.js REST APIs
Database	MongoDB for portfolios, engagement data, and connection graph
Media storage	Cloud object storage with CDN delivery for portfolio assets
Authentication	JWT-based sessions with bcrypt-hashed credentials

V. Performance Summary

Feed Ranking Approach	Mean Average Precision @10	Avg. User-Reported Relevance (1-5)
Chronological ordering (baseline)	0.33	2.7
Engagement-only ranking	0.51	3.4
Tag overlap + dampened engagement (proposed)	0.67	4.1

VI. Conclusion

This paper presented a detailed technical treatment of an online portfolio and networking platform for creative professionals, combining structured portfolio management, tag-and-engagement-weighted discovery ranking, and a connection-graph networking layer. Illustrative

evaluation indicates meaningful relevance improvements over chronological feed ordering.