

# Professional Network Database - Entity Relationship Diagram

# Core Tables

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roles
<b>role_id (integer) PK</b>
name (varchar(50))
description (text)
permissions (jsonb)
created_at (timestamp)
updated_at (timestamp)

users
<b>user_id (uuid) PK</b>
email (varchar(255))
email_encrypted (bytea)
phone (varchar(50))
phone_encrypted (bytea)
password_hash (text)
created_at (timestamp)
updated_at (timestamp)
last_updated_by (uuid)
is_active (boolean)
last_login_at (timestamp)
account_locked (boolean)
failed_login_attempts (integer)
password_reset_token (uuid)
password_reset_expires (timestamp)
email_verified (boolean)
email_verification_token (uuid)
mfa_enabled (boolean)
mfa_secret (text)

user_roles
<b>user_role_id (uuid) PK</b>
user_id (uuid)
role_id (integer)
assigned_at (timestamp)
assigned_by (uuid) <span>FK</span>
expires_at (timestamp)
is_active (boolean)
<b>Relationships:</b> assigned_by → users.user_id

users_history
history_id (uuid) PK
user_id (uuid) FK
email (varchar(255))
password_hash (text)
is_active (boolean)
valid_from (timestamp)
valid_to (timestamp)
changed_by (uuid)
change_reason (text)
Relationships: user_id → users.user_id

user_profiles
profile_id (uuid) PK
user_id (uuid)
first_name (varchar(100))
last_name (varchar(100))
full_name (varchar(255))
WHEN (first_name)
WHEN (first_name)
WHEN (last_name)
ELSE (first_name)
profile_summary (text)
headline (varchar(255))
location_country (varchar(100))
location_state (varchar(100))
location_city (varchar(100))
language_preference (varchar(10))
profile_visibility (varchar(50))
is_profile_approved (boolean)
industry_id (integer) FK
is_verified_influencer (boolean)
availability (text)

# Network Tables

user_connections
connection_id (uuid)
user_id (uuid)
connected_user_id (uuid)
connection_status (varchar(50))
connection_date (timestamp)
last_interaction_date (timestamp)
connection_strength (integer)
created_at (timestamp)
updated_at (timestamp)

profile_visits
visit_id (uuid)
visitor_id (uuid)
profile_id (uuid)
visit_timestamp (timestamp)
visit_duration (interval)
visit_source (varchar(255))
visit_purpose (varchar(50))
is_reported (boolean)
created_at (timestamp)
PRIMARY (KEY) PK

# Skills Tables

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skill_categories
<b>category_id (integer) PK</b>
name (varchar(100))
description (text)
parent_category_id (integer) <span>FK</span>
created_at (timestamp)
updated_at (timestamp)
<b>Relationships:</b> parent_category_id → skill_categories.category_id

skills
<b>skill_id (integer) PK</b>
name (varchar(100))
category_id (integer) <span>FK</span>
description (text)
is_verified (boolean)
popularity_score (integer)
created_at (timestamp)
updated_at (timestamp)
<b>Relationships:</b> category_id → skill_categories.category_id

user_skills
<b>user_skill_id (uuid) PK</b>
user_id (uuid)
skill_id (integer)
experience_years (numeric(4))
proficiency_level (varchar(50))
last_used_date (date)
is_highlighted (boolean)
endorsement_count (integer)
created_at (timestamp)
updated_at (timestamp)

skill_endorsements
<b>endorsement_id (uuid) PK</b>
user_skill_id (uuid)
endorsed_by (uuid)
comment (text)
endorsed_at (timestamp)
relationship (varchar(50))
weight (integer)





content_types
<b>content_type_id (integer) PK</b>
name (varchar(50))
description (text)
allowed_formats (text)
max_size_kb (integer)
created_at (timestamp)
updated_at (timestamp)

content_categories
<b>category_id (integer) PK</b>
name (varchar(100))
description (text)
parent_category_id (integer) <span>FK</span>
created_at (timestamp)
updated_at (timestamp)
<b>Relationships:</b> parent_category_id → content_categories.category_id

contents
<b>content_id (uuid) PK</b>
content_type_id (integer)
user_id (uuid)
title (varchar(255))
body (text)
summary (text)
created_at (timestamp)
updated_at (timestamp)
published_at (timestamp)
visibility (varchar(50))
status (varchar(50))
version (integer)
search_vector (tsvector)

content_categories_map
<b>map_id (uuid) PK</b>
content_id (uuid)
category_id (integer)
created_at (timestamp)

content_versions
<b>version_id (uuid) PK</b>
content_id (uuid)
version_number (integer)
title (varchar(255))
body (text)

created\_at (timestamp)

created\_by (uuid)

change\_summary (text)

# Companies Tables

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companies
<b>company_id (uuid) PK</b>
name (varchar(255))
description (text)
website_url (varchar(255))
headquarters_country (varchar(100))
headquarters_state (varchar(100))
headquarters_city (varchar(100))
founded_year (integer)
company_size (varchar(50))
revenue (varchar(100))
industry_id (integer) <span>FK</span>
logo_url (text)
banner_url (text)
overall_rating (numeric(3))
is_verified (boolean)
verified_at (timestamp)
created_at (timestamp)
updated_at (timestamp)
search_vector (tsvector)
<b>Relationships:</b> industry_id → industries.industry_id

company_admins
<b>admin_id (uuid) PK</b>
company_id (uuid)
user_id (uuid)
role (varchar(50))
is_primary (boolean)
created_at (timestamp)
updated_at (timestamp)

company_awards
<b>award_id (uuid) PK</b>
company_id (uuid)
award_name (varchar(255))
awarding_organization (varchar(255))
award_year (smallint)
award_category (varchar(255))
description (text)
logo_url (text)
is_verified (boolean)
verified_by (uuid) <span>FK</span>
verified_at (timestamp)
created_at (timestamp)
updated_at (timestamp)
<b>Relationships:</b> verified_by → users.user_id

### company\_executives

**executive\_id (uuid) PK**

company\_id (uuid)

name (varchar(255))

title (varchar(255))

is\_current (boolean)

start\_date (date)

end\_date (date)

bio (text)

photo\_url (text)

created\_at (timestamp)

updated\_at (timestamp)

### company\_statistics

**stat\_id (uuid) PK**

company\_id (uuid)

stat\_date (date)

average\_rating (numeric(3))

recommend\_to\_friend\_percent (numeric(5))

executive\_approval\_percent (numeric(5))

total\_reviews (integer)

total\_salaries (integer)

total\_interviews (integer)

total\_photos (integer)

created\_at (timestamp)

updated\_at (timestamp)



job_types
job_type_id (integer) PK
name (varchar(50))
description (text)
created_at (timestamp)
updated_at (timestamp)

job_listings
job_listing_id (uuid) PK
company_id (uuid)
posted_by (uuid)
title (varchar(255))
description (text)
responsibilities (text)
qualifications (text)
benefits (text)
location_country (varchar(100))
location_state (varchar(100))
location_city (varchar(100))
is_remote (boolean)
job_type_id (integer)
salary_min (numeric(12))
salary_max (numeric(12))
salary_currency (varchar(3))
salary_period (varchar(20))
posted_at (timestamp)
updated_at (timestamp)
application_deadline (timestamp)

is_active (boolean)
views_count (integer)
applications_count (integer)
experience_level (varchar(50))
education_level (varchar(50))
search_vector (tsvector)

job_applications
<b>application_id (uuid) PK</b>
job_listing_id (uuid)
applicant_id (uuid)
resume_url (text)
cover_letter (text)
application_date (timestamp)
status (varchar(50))
last_status_change (timestamp)
notes (text)
is_withdrawn (boolean)
created_at (timestamp)
updated_at (timestamp)



# Reviews Tables

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company_reviews
review_id (uuid) PK
company_id (uuid)
user_id (uuid)
job_title (varchar(255))
employment_status (varchar(50))
review_date (date)
overall_rating (smallint)
work_life_balance (smallint)
culture_values (smallint)
career_opportunities (smallint)
compensation_benefits (smallint)
senior_management (smallint)
pros (text)
cons (text)
advice_to_management (text)
is_current_employee (boolean)
is_anonymous (boolean)
approval_status (varchar(20))
created_at (timestamp)
updated_at (timestamp)

overall\_rating (BETWEEN)

manager_reviews
review_id (uuid) PK
manager_id (uuid)
user_id (uuid)
company_id (uuid)
job_title (varchar(255))
employment_status (varchar(50))
review_date (date)
overall_rating (smallint)
communication (smallint)
leadership (smallint)
supportiveness (smallint)
fairness (smallint)
feedback_quality (smallint)
pros (text)
cons (text)
advice_to_manager (text)
is_current_employee (boolean)
is_anonymous (boolean)
approval_status (varchar(20))
created_at (timestamp)

updated_at (timestamp)
overall_rating (BETWEEN)

executive_ratings
rating_id (uuid) PK
executive_id (uuid)
user_id (uuid)
approval_rating (smallint)
rating_date (date)
comment (text)
is_current_employee (boolean)
is_anonymous (boolean)
approval_status (varchar(20))
created_at (timestamp)
updated_at (timestamp)

content_helpfulness
helpfulness_id (uuid) PK
content_type (varchar(50))
content_id (uuid)
user_id (uuid)
is_helpful (boolean)
created_at (timestamp)
updated_at (timestamp)

# HR Tables

employees	
employee_id (uuid) PK	
user_id (uuid)	
company_id (uuid)	
employee_number (varchar(50))	
department (varchar(255))	
job_title (varchar(255))	
date_of_joining (date)	
employment_status (varchar(50))	
manager_id (uuid)	FK
created_at (timestamp)	
updated_at (timestamp)	
Relationships: manager_id → employees.employee_id	

attendance	
attendance_id (uuid) PK	
employee_id (uuid)	
check_in_time (timestamp)	
check_out_time (timestamp)	
status (varchar(50))	
notes (text)	
created_at (timestamp)	
updated_at (timestamp)	

manager_statistics	
stat_id (uuid) PK	
manager_id (uuid)	
company_id (uuid)	
stat_date (date)	
average_rating (numeric(3))	
communication_rating (numeric(3))	
leadership_rating (numeric(3))	
supportiveness_rating (numeric(3))	
fairness_rating (numeric(3))	
feedback_quality_rating (numeric(3))	
total_reviews (integer)	
created_at (timestamp)	
updated_at (timestamp)	

# Salary Tables

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salary_reports	
report_id (uuid) PK	
company_id (uuid)	FK
user_id (uuid)	
job_title (varchar(255))	
base_salary (numeric(12))	
bonus (numeric(12))	
stock_options (numeric(12))	
profit_sharing (numeric(12))	
commission (numeric(12))	
total_compensation (numeric(12))	
currency (varchar(3))	
years_experience (smallint)	
years_at_company (smallint)	
location_country (varchar(100))	
location_state (varchar(100))	
location_city (varchar(100))	
employment_status (varchar(50))	
report_date (date)	
is_anonymous (boolean)	
approval_status (varchar(20))	

created\_at (timestamp)

updated\_at (timestamp)

**Relationships:**

company\_id → companies.company\_id



# Benefits Tables

benefit_types
benefit_type_id (integer) PK
name (varchar(100))
category (varchar(50))
description (text)
created_at (timestamp)
updated_at (timestamp)

company_benefits
benefit_id (uuid) PK
company_id (uuid)
benefit_type_id (integer)
benefit_description (text)
is_offered (boolean)
last_verified (date)
verified_by (uuid) FK
created_at (timestamp)
updated_at (timestamp)
Relationships: verified_by → users.user_id

# Interviews Tables

interview_experiences
experience_id (uuid) PK
company_id (uuid)
user_id (uuid)
job_title (varchar(255))
interview_date (date)
offer_status (varchar(50))
difficulty (smallint)
interview_duration (smallint)
interview_process (text)
questions_asked (text)
interview_outcome (text)
created_at (timestamp)
updated_at (timestamp)
is_anonymous (boolean)
approval_status (varchar(20))

# Photos Tables

office_photos
photo_id (uuid) PK
company_id (uuid)
user_id (uuid)
photo_url (text)
thumbnail_url (text)
caption (text)
photo_date (date)
photo_type (varchar(50))
is_featured (boolean)
is_anonymous (boolean)
approval_status (varchar(20))
created_at (timestamp)
updated_at (timestamp)



data_subjects	
<b>subject_id (uuid) PK</b>	
user_id (uuid)	
is_eu_citizen (boolean)	
data_protection_officer_contact (uuid)	FK
consent_version (varchar(50))	
privacy_settings (jsonb)	
created_at (timestamp)	
updated_at (timestamp)	
Relationships: data_protection_officer_contact → users.user_id	

data_categories	
<b>category_id (integer) PK</b>	
name (varchar(100))	
description (text)	
sensitivity_level (varchar(50))	
created_at (timestamp)	
updated_at (timestamp)	

data_processing_activities	
<b>activity_id (uuid) PK</b>	
purpose_id (integer)	
legal_basis (varchar(100))	
retention_period (interval)	
description (text)	
created_at (timestamp)	
updated_at (timestamp)	

data_processing_categories	
<b>mapping_id (uuid) PK</b>	
activity_id (uuid)	
category_id (integer)	
created_at (timestamp)	

consent_records	
<b>consent_id (uuid) PK</b>	
user_id (uuid)	
activity_id (uuid)	
consent_given (boolean)	
consent_timestamp (timestamp)	
withdrawal_timestamp (timestamp)	
ip_address (inet)	
user_agent (text)	

version (varchar(50))
created_at (timestamp)
updated_at (timestamp)

data_subject_requests	
<b>request_id (uuid) PK</b>	
user_id (uuid)	
request_type (varchar(50))	
request_details (text)	
request_date (timestamp)	
status (varchar(50))	
completion_date (timestamp)	
handled_by (uuid)	FK
notes (text)	
created_at (timestamp)	
updated_at (timestamp)	
<b>Relationships:</b> handled_by → users.user_id	

data_breaches	
<b>breach_id (uuid) PK</b>	
incident_time (timestamp)	
detection_time (timestamp)	
affected_data_subjects (integer)	
breach_description (text)	
data_categories_affected (integer)	
containment_actions (text)	
notification_sent (boolean)	
notification_date (timestamp)	
severity (varchar(20))	
created_at (timestamp)	
updated_at (timestamp)	

# Data Management Tables

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data_retention_policies	
policy_id (uuid) PK	
table_name (varchar(255))	
retention_period (interval)	
archival_strategy (varchar(100))	
disposal_method (varchar(100))	
last_review_date (date)	
next_review_date (date)	
created_at (timestamp)	
updated_at (timestamp)	

data_archives	
archive_id (uuid) PK	
source_table (varchar(255))	
archive_criteria (text)	
records_count (integer)	
archive_timestamp (timestamp)	
storage_location (text)	
retention_end_date (timestamp)	
is_encrypted (boolean)	
created_at (timestamp)	
updated_at (timestamp)	

data_quality_metrics	
metric_id (uuid) PK	
table_name (varchar(255))	
metric_date (date)	
completeness_score (numeric(5))	
accuracy_score (numeric(5))	
consistency_score (numeric(5))	
timeliness_score (numeric(5))	
valid_records (integer)	
total_records (integer)	
created_at (timestamp)	
updated_at (timestamp)	
completeness_score (BETWEEN)	
accuracy_score (BETWEEN)	
consistency_score (BETWEEN)	
timeliness_score (BETWEEN)	

data_quality_issues	
issue_id (uuid) PK	
table_name (varchar(255))	
column_name (varchar(255))	



issue_type (varchar(100))
affected_records (integer)
severity (varchar(20))
detection_time (timestamp)
resolution_status (varchar(50))
resolution_time (timestamp)
resolution_notes (text)
created_at (timestamp)
updated_at (timestamp)

data_profiles
<b>profile_id (uuid) PK</b>
table_name (varchar(255))
profile_date (date)
column_count (integer)
row_count (integer)
null_value_percentage (numeric(5))
distinct_value_percentage (numeric(5))
data_type_distribution (jsonb)
pattern_analysis (jsonb)
created_at (timestamp)
updated_at (timestamp)

# Other Tables

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industries
<b>industry_id (integer) PK</b>
name (varchar(100))
description (text)
created_at (timestamp)
updated_at (timestamp)

IF
partition_name (text)
start_date (text)
end_date (text)
EXECUTE (format())
CREATE (TABLE)
PARTITION (OF)
FOR (VALUES)
EXECUTE (format())
CREATE (INDEX)
ON (public)
EXECUTE (format())
CREATE (INDEX)
ON (public)
EXECUTE (format())
CREATE (INDEX)
ON (public)
WHERE (approval_status)

data_processing_purposes
<b>purpose_id (integer) PK</b>
name (varchar(100))
description (text)
created_at (timestamp)
updated_at (timestamp)

recommendation_models
<b>model_id (uuid) PK</b>

model_name (varchar(100))
model_version (varchar(50))
model_type (varchar(50))
is_active (boolean)
created_at (timestamp)
updated_at (timestamp)
last_trained_at (timestamp)
model_parameters (jsonb)
performance_metrics (jsonb)

user_recommendations
<b>recommendation_id (uuid) PK</b>
user_id (uuid)
model_id (uuid)
recommended_item_id (uuid)
item_type (varchar(50))
relevance_score (numeric(5))
recommendation_reason (text)
is_clicked (boolean)
is_converted (boolean)
created_at (timestamp)
updated_at (timestamp)

user_activities
<b>activity_id (uuid) PK</b>
user_id (uuid)
activity_type (varchar(50))
activity_timestamp (timestamp)
object_type (varchar(50))
object_id (uuid)
metadata (jsonb)
session_id (uuid)
ip_address (inet)
user_agent (text)

languages
<b>language_code (varchar(10)) PK</b>
name (varchar(100))
native_name (varchar(100))
is_active (boolean)
created_at (timestamp)
updated_at (timestamp)

translation_keys
<b>key_id (uuid) PK</b>
key_name (varchar(255))
description (text)
context (text)
created_at (timestamp)
updated_at (timestamp)

translations
<b>translation_id (uuid) PK</b>
key_id (uuid)
language_code (varchar(10))
translation_text (text)
is_approved (boolean)
created_at (timestamp)
updated_at (timestamp)

## Legend

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**Primary Key (PK)** - Column that uniquely identifies each record



**Foreign Key (FK)** - Column that references a primary key in another table

Generated from improved\_schema.sql - 57 tables, 13 relationships