**Career Transformation Seeker - Database Schema Mermaid ER Diagram**

**Complete Entity Relationship Diagram**

erDiagram  
 %% Core Persona & Career Management  
 persona\_profiles {  
 uuid persona\_id PK  
 varchar persona\_name UK  
 varchar persona\_code UK  
 text description  
 jsonb target\_audience  
 jsonb career\_focus  
 jsonb learning\_objectives  
 learning\_style preferred\_learning\_styles  
 difficulty\_level difficulty\_preference  
 varchar pacing\_preference  
 jsonb engagement\_preferences  
 jsonb typical\_background  
 industry\_sector target\_industries  
 integer expected\_transition\_timeline\_weeks  
 jsonb mentorship\_requirements  
 jsonb portfolio\_requirements  
 jsonb certification\_pathways  
 integer time\_commitment\_hours\_week  
 integer session\_duration\_minutes  
 timestamptz created\_at  
 timestamptz updated\_at  
 uuid created\_by  
 boolean is\_active  
 }  
  
 user\_career\_profiles {  
 uuid profile\_id PK  
 uuid user\_id UK  
 uuid persona\_id FK  
 varchar current\_job\_title  
 industry\_sector current\_industry  
 varchar current\_company  
 integer years\_of\_experience  
 employment\_status employment\_status  
 varchar target\_job\_title  
 industry\_sector target\_industry  
 jsonb target\_companies  
 jsonb target\_salary\_range  
 jsonb geographic\_preferences  
 jsonb transformation\_goals  
 date target\_start\_date  
 date expected\_completion\_date  
 varchar transition\_urgency  
 jsonb current\_skills  
 jsonb transferable\_skills  
 jsonb skill\_gaps  
 jsonb educational\_background  
 jsonb certifications\_current  
 jsonb certifications\_target  
 integer available\_study\_hours\_week  
 jsonb preferred\_study\_schedule  
 jsonb support\_network  
 decimal budget\_for\_training  
 career\_stage career\_stage  
 decimal stage\_progress\_percentage  
 jsonb milestone\_achievements  
 timestamptz created\_at  
 timestamptz updated\_at  
 }  
  
 industry\_sectors {  
 uuid sector\_id PK  
 industry\_sector sector\_name UK  
 varchar display\_name  
 text description  
 varchar growth\_outlook  
 jsonb average\_salary\_range  
 varchar job\_market\_demand  
 decimal remote\_work\_availability  
 jsonb required\_skills  
 jsonb preferred\_skills  
 jsonb common\_tools  
 jsonb typical\_certifications  
 jsonb entry\_level\_roles  
 jsonb mid\_level\_roles  
 jsonb senior\_level\_roles  
 jsonb typical\_career\_progression  
 jsonb recommended\_learning\_sequence  
 integer average\_transition\_time\_months  
 jsonb success\_factors  
 jsonb common\_challenges  
 timestamptz created\_at  
 timestamptz updated\_at  
 }  
  
 %% Enhanced Curriculum Hierarchy  
 curriculum\_modules {  
 uuid module\_id PK  
 varchar module\_code UK  
 varchar title  
 text description  
 jsonb learning\_objectives  
 difficulty\_level difficulty\_level  
 integer estimated\_duration\_minutes  
 text prerequisites  
 integer order\_index  
 jsonb career\_relevance  
 jsonb industry\_applications  
 career\_stage career\_stage\_alignment  
 jsonb portfolio\_components  
 jsonb certification\_alignment  
 jsonb transferable\_skills  
 jsonb industry\_case\_studies  
 text mentor\_guidance\_notes  
 jsonb persona\_adaptations  
 varchar version  
 timestamptz created\_at  
 timestamptz updated\_at  
 uuid created\_by  
 content\_status status  
 }  
  
 curriculum\_components {  
 uuid component\_id PK  
 uuid module\_id FK  
 varchar component\_code  
 varchar title  
 text description  
 jsonb learning\_objectives  
 integer estimated\_duration\_minutes  
 integer order\_index  
 jsonb industry\_relevance  
 jsonb job\_role\_mapping  
 jsonb skill\_level\_requirements  
 jsonb real\_world\_applications  
 jsonb persona\_emphasis  
 jsonb mentorship\_focus\_areas  
 timestamptz created\_at  
 timestamptz updated\_at  
 }  
  
 curriculum\_topics {  
 uuid topic\_id PK  
 uuid component\_id FK  
 varchar topic\_code  
 varchar title  
 text description  
 jsonb learning\_objectives  
 text prerequisites  
 integer estimated\_duration\_minutes  
 difficulty\_level difficulty\_level  
 cognitive\_level cognitive\_level  
 integer order\_index  
 text primary\_skills  
 text secondary\_skills  
 jsonb industry\_skills  
 jsonb workplace\_scenarios  
 integer interview\_relevance  
 jsonb portfolio\_integration  
 timestamptz created\_at  
 timestamptz updated\_at  
 }  
  
 curriculum\_concepts {  
 uuid concept\_id PK  
 uuid topic\_id FK  
 varchar concept\_code  
 varchar title  
 text description  
 content\_type content\_type  
 cognitive\_level cognitive\_level  
 integer estimated\_duration\_minutes  
 integer complexity\_score  
 integer order\_index  
 jsonb learning\_objectives  
 text key\_concepts  
 jsonb industry\_context  
 jsonb professional\_use\_cases  
 integer career\_impact\_score  
 timestamptz created\_at  
 timestamptz updated\_at  
 }  
  
 %% Enhanced Content Management with Career Focus  
 content\_chunks {  
 uuid chunk\_id PK  
 uuid concept\_id FK  
 varchar external\_id UK  
 varchar title  
 text description  
 content\_type content\_type  
 content\_format format  
 varchar language  
 text content\_markdown  
 text content\_html  
 jsonb content\_json  
 text content\_plain\_text  
 text content\_preview  
 jsonb learning\_objectives  
 text prerequisites  
 integer estimated\_duration\_minutes  
 difficulty\_level difficulty\_level  
 cognitive\_level cognitive\_level  
 integer complexity\_score  
 jsonb industry\_relevance  
 jsonb job\_role\_relevance  
 career\_stage career\_stage\_applicability  
 integer interview\_preparation\_value  
 integer portfolio\_integration\_potential  
 jsonb certification\_alignment  
 jsonb workplace\_scenarios  
 jsonb industry\_case\_studies  
 jsonb professional\_tools  
 text mentor\_guidance\_notes  
 jsonb coaching\_conversation\_starters  
 jsonb common\_career\_questions  
 integer word\_count  
 integer token\_count  
 decimal readability\_score  
 decimal quality\_score  
 decimal industry\_validation\_score  
 text keywords  
 text industry\_keywords  
 integer search\_weight  
 varchar version  
 uuid parent\_chunk\_id FK  
 content\_status status  
 timestamptz published\_at  
 timestamptz expires\_at  
 timestamptz last\_industry\_review  
 timestamptz created\_at  
 timestamptz updated\_at  
 uuid created\_by  
 uuid last\_modified\_by  
 uuid industry\_reviewer\_id  
 }  
  
 industry\_case\_studies {  
 uuid case\_study\_id PK  
 uuid chunk\_id FK  
 varchar title  
 industry\_sector industry  
 varchar company\_name  
 varchar company\_size  
 text background\_context  
 text challenge\_description  
 text solution\_approach  
 text implementation\_details  
 text outcomes\_achieved  
 text lessons\_learned  
 jsonb technologies\_used  
 jsonb skills\_demonstrated  
 difficulty\_level complexity\_level  
 jsonb job\_roles\_applicable  
 jsonb interview\_scenarios  
 text portfolio\_application\_ideas  
 boolean is\_validated  
 uuid validated\_by  
 timestamptz validated\_at  
 timestamptz created\_at  
 timestamptz updated\_at  
 }  
  
 professional\_project\_templates {  
 uuid template\_id PK  
 uuid chunk\_id FK  
 varchar project\_name  
 text project\_description  
 industry\_sector target\_industries  
 jsonb target\_roles  
 difficulty\_level difficulty\_level  
 integer estimated\_completion\_hours  
 text project\_requirements  
 jsonb technical\_specifications  
 jsonb deliverables  
 jsonb evaluation\_criteria  
 jsonb skills\_demonstrated  
 jsonb technologies\_required  
 jsonb prerequisite\_knowledge  
 integer portfolio\_value  
 integer interview\_story\_potential  
 integer industry\_relevance\_score  
 text starter\_code\_url  
 jsonb dataset\_urls  
 jsonb documentation\_templates  
 jsonb reference\_implementations  
 jsonb mentor\_checkpoints  
 jsonb common\_challenges  
 jsonb success\_indicators  
 timestamptz created\_at  
 timestamptz updated\_at  
 }  
  
 %% Career-Enhanced AI Avatar System  
 ai\_avatar\_roles {  
 uuid role\_id PK  
 avatar\_role role\_name UK  
 varchar display\_name  
 text role\_description  
 jsonb interaction\_style  
 jsonb assessment\_types  
 jsonb content\_focus  
 jsonb target\_audience  
 jsonb career\_coaching\_capabilities  
 jsonb industry\_expertise  
 varchar mentorship\_style  
 jsonb professional\_experience\_simulation  
 varchar feedback\_style  
 varchar questioning\_approach  
 varchar error\_handling\_style  
 varchar career\_guidance\_approach  
 timestamptz created\_at  
 timestamptz updated\_at  
 boolean is\_active  
 }  
  
 content\_role\_variations {  
 uuid variation\_id PK  
 uuid chunk\_id FK  
 uuid role\_id FK  
 varchar instruction\_type  
 varchar teaching\_strategy  
 varchar interaction\_style  
 jsonb industry\_context\_adaptation  
 text professional\_scenario\_integration  
 jsonb career\_coaching\_elements  
 jsonb mentorship\_conversation\_prompts  
 text role\_specific\_intro  
 text role\_specific\_summary  
 jsonb role\_specific\_exercises  
 text career\_application\_examples  
 varchar help\_type  
 varchar assessment\_type  
 varchar question\_format  
 jsonb career\_readiness\_indicators  
 varchar collaboration\_type  
 varchar guidance\_type  
 jsonb professional\_networking\_elements  
 timestamptz created\_at  
 }  
  
 persona\_content\_adaptations {  
 uuid adaptation\_id PK  
 uuid chunk\_id FK  
 uuid persona\_id FK  
 integer difficulty\_adjustment  
 decimal pacing\_multiplier  
 varchar emphasis\_level  
 jsonb industry\_focus\_adjustment  
 jsonb career\_stage\_customization  
 jsonb background\_consideration  
 jsonb additional\_examples  
 text simplified\_explanations  
 text advanced\_extensions  
 text persona\_specific\_context  
 text career\_transition\_context  
 text networking\_opportunities  
 jsonb industry\_connection\_suggestions  
 text certification\_pathway\_integration  
 content\_format preferred\_formats  
 jsonb interaction\_preferences  
 varchar mentorship\_integration\_level  
 timestamptz created\_at  
 }  
  
 %% Mentorship & Career Coaching System  
 mentor\_profiles {  
 uuid mentor\_id PK  
 uuid user\_id UK  
 varchar full\_name  
 varchar email UK  
 varchar linkedin\_profile  
 text professional\_photo\_url  
 varchar current\_job\_title  
 varchar current\_company  
 industry\_sector current\_industry  
 integer years\_of\_experience  
 jsonb previous\_roles  
 jsonb career\_transition\_experience  
 jsonb expertise\_areas  
 industry\_sector industries\_served  
 jsonb mentorship\_specialties  
 varchar languages\_spoken  
 jsonb availability\_schedule  
 integer max\_mentees  
 integer current\_mentee\_count  
 integer preferred\_session\_duration  
 decimal session\_rate  
 jsonb mentoring\_style  
 jsonb communication\_preferences  
 jsonb specialization\_focus  
 integer total\_mentees\_helped  
 decimal average\_rating  
 decimal success\_rate  
 boolean is\_verified  
 timestamptz verification\_date  
 mentorship\_status status  
 boolean background\_check\_completed  
 timestamptz created\_at  
 timestamptz updated\_at  
 }  
  
 mentorship\_relationships {  
 uuid relationship\_id PK  
 uuid mentor\_id FK  
 uuid mentee\_user\_id  
 uuid persona\_id FK  
 mentorship\_status relationship\_status  
 date start\_date  
 date planned\_end\_date  
 date actual\_end\_date  
 jsonb mentorship\_goals  
 jsonb success\_criteria  
 jsonb focus\_areas  
 varchar meeting\_frequency  
 integer sessions\_completed  
 integer goals\_achieved  
 text current\_focus  
 text progress\_notes  
 decimal mentee\_satisfaction\_rating  
 decimal mentor\_satisfaction\_rating  
 text relationship\_notes  
 timestamptz created\_at  
 timestamptz updated\_at  
 }  
  
 career\_coaching\_sessions {  
 uuid session\_id PK  
 uuid relationship\_id FK  
 uuid user\_id  
 varchar session\_type  
 timestamptz session\_date  
 integer duration\_minutes  
 varchar session\_mode  
 jsonb session\_objectives  
 jsonb topics\_covered  
 jsonb key\_insights  
 jsonb action\_items  
 jsonb resources\_shared  
 text session\_outcomes  
 jsonb homework\_assigned  
 timestamptz next\_session\_planned  
 boolean follow\_up\_required  
 decimal mentee\_session\_rating  
 decimal mentor\_session\_rating  
 text session\_feedback  
 jsonb goals\_progress\_made  
 jsonb challenges\_discussed  
 jsonb breakthroughs\_achieved  
 timestamptz created\_at  
 timestamptz updated\_at  
 }  
  
 career\_milestones {  
 uuid milestone\_id PK  
 uuid user\_id  
 uuid career\_profile\_id FK  
 varchar milestone\_name  
 text milestone\_description  
 varchar milestone\_type  
 date target\_date  
 date achieved\_date  
 decimal progress\_percentage  
 boolean is\_achieved  
 varchar verification\_method  
 jsonb evidence\_urls  
 integer career\_impact\_score  
 jsonb skill\_development\_areas  
 jsonb industry\_recognition  
 boolean mentor\_involvement  
 uuid coaching\_sessions\_related  
 jsonb community\_support\_received  
 text lessons\_learned  
 jsonb challenges\_overcome  
 text celebration\_notes  
 timestamptz created\_at  
 timestamptz updated\_at  
 }  
  
 %% Professional Portfolio Management  
 user\_portfolio\_projects {  
 uuid project\_id PK  
 uuid user\_id  
 uuid template\_id FK  
 uuid career\_profile\_id FK  
 varchar project\_name  
 text project\_description  
 project\_status project\_status  
 date start\_date  
 date target\_completion\_date  
 date actual\_completion\_date  
 date last\_activity\_date  
 jsonb technologies\_used  
 jsonb skills\_demonstrated  
 industry\_sector industry\_application  
 jsonb target\_job\_roles  
 jsonb requirements\_completed  
 jsonb milestones\_achieved  
 jsonb current\_challenges  
 jsonb next\_steps  
 decimal code\_quality\_score  
 jsonb industry\_feedback  
 jsonb peer\_review\_feedback  
 jsonb mentor\_review\_feedback  
 boolean is\_showcase\_ready  
 text portfolio\_presentation\_url  
 text demo\_url  
 text source\_code\_url  
 text documentation\_url  
 jsonb interview\_stories  
 jsonb resume\_bullet\_points  
 text linkedin\_showcase\_content  
 timestamptz created\_at  
 timestamptz updated\_at  
 }  
  
 project\_reviews {  
 uuid review\_id PK  
 uuid project\_id FK  
 uuid reviewer\_user\_id  
 varchar reviewer\_type  
 timestamptz review\_date  
 decimal overall\_rating  
 varchar review\_type  
 jsonb strengths\_identified  
 jsonb areas\_for\_improvement  
 jsonb technical\_feedback  
 jsonb presentation\_feedback  
 jsonb industry\_readiness\_feedback  
 jsonb next\_steps\_recommended  
 jsonb additional\_resources  
 jsonb skill\_development\_suggestions  
 decimal technical\_quality\_score  
 decimal presentation\_quality\_score  
 decimal industry\_relevance\_score  
 decimal interview\_readiness\_score  
 boolean follow\_up\_required  
 timestamptz follow\_up\_date  
 jsonb action\_items  
 timestamptz created\_at  
 }  
  
 %% Enhanced Skills & Assessment System  
 skill\_taxonomy {  
 uuid skill\_id PK  
 uuid parent\_skill\_id FK  
 varchar skill\_name  
 varchar skill\_code UK  
 text skill\_description  
 integer skill\_level  
 varchar skill\_category  
 jsonb industry\_demand  
 jsonb job\_role\_requirements  
 decimal skill\_market\_value  
 varchar future\_outlook  
 integer typical\_learning\_duration\_hours  
 uuid prerequisite\_skills  
 uuid complementary\_skills  
 jsonb certification\_pathways  
 jsonb assessment\_methods  
 jsonb industry\_validation\_criteria  
 jsonb entry\_level\_proficiency  
 jsonb mid\_level\_proficiency  
 jsonb senior\_level\_proficiency  
 jsonb expert\_level\_proficiency  
 timestamptz created\_at  
 timestamptz updated\_at  
 boolean is\_active  
 }  
  
 user\_skill\_assessments {  
 uuid assessment\_id PK  
 uuid user\_id  
 uuid skill\_id FK  
 uuid career\_profile\_id FK  
 timestamptz assessment\_date  
 varchar assessment\_method  
 uuid assessor\_id  
 varchar current\_proficiency\_level  
 decimal proficiency\_score  
 varchar confidence\_level  
 jsonb evidence\_provided  
 varchar validation\_status  
 text validator\_notes  
 varchar target\_proficiency\_level  
 jsonb development\_plan  
 integer estimated\_improvement\_timeline\_weeks  
 uuid previous\_assessment\_id FK  
 decimal improvement\_since\_last  
 decimal skill\_development\_velocity  
 timestamptz created\_at  
 timestamptz updated\_at  
 }  
  
 %% Interview Preparation & Job Search  
 interview\_preparation {  
 uuid preparation\_id PK  
 uuid user\_id  
 uuid career\_profile\_id FK  
 varchar target\_company  
 varchar target\_role  
 varchar interview\_type  
 varchar preparation\_stage  
 jsonb research\_completed  
 jsonb questions\_practiced  
 jsonb answers\_prepared  
 jsonb technical\_topics\_studied  
 integer mock\_interviews\_completed  
 integer confidence\_level  
 decimal readiness\_score  
 jsonb areas\_for\_improvement  
 jsonb strengths\_to\_highlight  
 decimal latest\_mock\_interview\_score  
 decimal communication\_score  
 decimal technical\_knowledge\_score  
 decimal problem\_solving\_score  
 decimal cultural\_fit\_score  
 uuid coach\_assigned FK  
 integer coaching\_sessions\_completed  
 jsonb peer\_practice\_partners  
 timestamptz interview\_scheduled\_date  
 boolean interview\_completed  
 varchar interview\_outcome  
 timestamptz created\_at  
 timestamptz updated\_at  
 }  
  
 job\_applications {  
 uuid application\_id PK  
 uuid user\_id  
 uuid career\_profile\_id FK  
 varchar company\_name  
 varchar job\_title  
 text job\_posting\_url  
 jsonb salary\_range  
 varchar location  
 boolean remote\_option  
 date application\_date  
 varchar application\_status  
 varchar application\_method  
 decimal skills\_match\_percentage  
 jsonb requirements\_met  
 jsonb requirements\_gaps  
 jsonb culture\_fit\_assessment  
 varchar resume\_version  
 text cover\_letter\_customization  
 jsonb portfolio\_pieces\_submitted  
 jsonb interview\_stages  
 varchar current\_interview\_stage  
 jsonb interview\_feedback  
 varchar final\_outcome  
 date outcome\_date  
 decimal salary\_offered  
 text rejection\_reason  
 text feedback\_received  
 jsonb follow\_up\_actions  
 jsonb connections\_made  
 text lessons\_learned  
 timestamptz created\_at  
 timestamptz updated\_at  
 }  
  
 %% Enhanced Vector Embeddings  
 embedding\_models {  
 uuid model\_id PK  
 varchar model\_name UK  
 varchar model\_version  
 varchar provider  
 integer embedding\_dimensions  
 integer context\_window  
 text model\_description  
 boolean career\_content\_optimized  
 boolean industry\_terminology\_trained  
 boolean job\_matching\_capabilities  
 integer tokens\_per\_request\_limit  
 integer requests\_per\_minute\_limit  
 decimal cost\_per\_1k\_tokens  
 jsonb model\_parameters  
 boolean is\_active  
 boolean is\_default  
 timestamptz created\_at  
 }  
  
 content\_embeddings {  
 uuid embedding\_id PK  
 uuid chunk\_id FK  
 uuid model\_id FK  
 vector embedding\_vector  
 jsonb embedding\_metadata  
 vector industry\_context\_vector  
 vector job\_role\_relevance\_vector  
 vector career\_stage\_alignment\_vector  
 text content\_hash  
 integer token\_count  
 integer generation\_time\_ms  
 jsonb industry\_keywords\_embedded  
 jsonb job\_role\_keywords\_embedded  
 jsonb skill\_keywords\_embedded  
 timestamptz created\_at  
 }  
  
 %% Enhanced Assessment System  
 assessments {  
 uuid assessment\_id PK  
 uuid chunk\_id FK  
 varchar title  
 text description  
 assessment\_type assessment\_type  
 difficulty\_level difficulty\_level  
 text question\_text  
 text instructions  
 jsonb hints  
 text industry\_context  
 text real\_world\_scenario  
 jsonb job\_role\_relevance  
 integer interview\_preparation\_value  
 integer portfolio\_integration\_potential  
 jsonb technical\_skills\_assessed  
 jsonb soft\_skills\_assessed  
 boolean problem\_solving\_approach\_evaluated  
 boolean communication\_skills\_evaluated  
 integer points\_possible  
 integer passing\_score  
 integer industry\_benchmark\_score  
 integer time\_limit\_minutes  
 integer attempts\_allowed  
 cognitive\_level cognitive\_level  
 integer estimated\_time\_minutes  
 boolean auto\_gradable  
 boolean requires\_human\_review  
 jsonb coaching\_conversation\_triggers  
 jsonb mentorship\_discussion\_points  
 jsonb skill\_development\_recommendations  
 boolean randomize\_options  
 integer option\_pool\_size  
 timestamptz created\_at  
 timestamptz updated\_at  
 uuid created\_by  
 }  
  
 %% Enhanced User Progress & Career Analytics  
 user\_progress {  
 uuid progress\_id PK  
 uuid user\_id  
 uuid chunk\_id FK  
 uuid persona\_id FK  
 uuid role\_id FK  
 uuid career\_profile\_id FK  
 progress\_status status  
 decimal completion\_percentage  
 decimal mastery\_score  
 decimal industry\_readiness\_score  
 decimal interview\_readiness\_contribution  
 decimal portfolio\_readiness\_contribution  
 integer time\_spent\_minutes  
 integer session\_count  
 integer interaction\_count  
 difficulty\_level difficulty\_experienced  
 integer help\_requests\_count  
 integer error\_count  
 integer retry\_count  
 integer mentor\_consultations  
 integer real\_world\_application\_attempts  
 decimal industry\_context\_understanding\_score  
 decimal professional\_scenario\_success\_rate  
 timestamptz first\_accessed\_at  
 timestamptz last\_accessed\_at  
 timestamptz completed\_at  
 timestamptz industry\_ready\_at  
 timestamptz created\_at  
 timestamptz updated\_at  
 }  
  
 career\_transformation\_progress {  
 uuid transformation\_id PK  
 uuid user\_id UK  
 uuid career\_profile\_id FK  
 career\_stage current\_stage  
 date stage\_start\_date  
 date expected\_completion\_date  
 decimal overall\_progress\_percentage  
 decimal assessment\_completion\_percentage  
 decimal foundation\_completion\_percentage  
 decimal skill\_development\_percentage  
 decimal portfolio\_completion\_percentage  
 decimal interview\_prep\_percentage  
 decimal job\_search\_progress\_percentage  
 jsonb skills\_mastered  
 jsonb skills\_in\_progress  
 jsonb skills\_planned  
 jsonb competency\_gap\_analysis  
 integer projects\_completed  
 integer projects\_in\_progress  
 integer showcase\_ready\_projects  
 integer industry\_validated\_projects  
 integer mock\_interviews\_completed  
 decimal interview\_readiness\_score  
 integer job\_applications\_submitted  
 integer interviews\_scheduled  
 integer offers\_received  
 boolean mentorship\_relationship\_active  
 integer coaching\_sessions\_completed  
 integer peer\_interactions\_count  
 varchar community\_engagement\_level  
 decimal goal\_achievement\_rate  
 decimal milestone\_completion\_rate  
 boolean time\_on\_track  
 integer confidence\_level  
 decimal industry\_knowledge\_score  
 decimal technical\_competency\_score  
 decimal professional\_presentation\_score  
 decimal networking\_effectiveness\_score  
 timestamptz created\_at  
 timestamptz updated\_at  
 }  
  
 %% Career Outcome & Feedback System  
 employer\_feedback {  
 uuid feedback\_id PK  
 uuid user\_id  
 varchar employer\_company  
 varchar employer\_contact\_name  
 varchar employer\_title  
 timestamptz feedback\_date  
 date hire\_date  
 varchar job\_title  
 decimal starting\_salary  
 varchar employment\_type  
 decimal overall\_performance\_rating  
 decimal technical\_skills\_rating  
 decimal problem\_solving\_rating  
 decimal communication\_skills\_rating  
 decimal teamwork\_rating  
 decimal adaptability\_rating  
 jsonb strengths\_identified  
 jsonb areas\_for\_improvement  
 text training\_program\_effectiveness  
 text preparation\_quality\_feedback  
 text interview\_performance\_notes  
 text portfolio\_quality\_feedback  
 text technical\_assessment\_feedback  
 text cultural\_fit\_assessment  
 jsonb curriculum\_improvement\_suggestions  
 jsonb additional\_skills\_needed  
 text industry\_readiness\_feedback  
 boolean willing\_to\_hire\_more  
 boolean partnership\_interest  
 boolean mentorship\_opportunities  
 timestamptz created\_at  
 }  
  
 career\_outcomes {  
 uuid outcome\_id PK  
 uuid user\_id  
 uuid career\_profile\_id FK  
 varchar outcome\_type  
 date outcome\_date  
 varchar verification\_status  
 varchar company\_name  
 varchar job\_title  
 varchar job\_level  
 industry\_sector industry\_sector  
 varchar employment\_type  
 decimal starting\_salary  
 varchar salary\_currency  
 decimal total\_compensation  
 decimal salary\_increase\_percentage  
 integer time\_to\_first\_offer\_days  
 integer total\_applications\_submitted  
 integer interviews\_attended  
 integer offers\_received  
 jsonb skills\_most\_valuable  
 jsonb portfolio\_projects\_showcased  
 decimal interview\_preparation\_effectiveness  
 decimal mentorship\_impact\_rating  
 varchar work\_location  
 integer remote\_work\_percentage  
 boolean relocation\_required  
 jsonb career\_growth\_opportunities  
 jsonb continued\_learning\_requirements  
 boolean mentorship\_opportunities\_available  
 decimal job\_satisfaction\_rating  
 decimal career\_transition\_success\_rating  
 decimal program\_recommendation\_likelihood  
 text success\_story  
 jsonb six\_month\_update  
 jsonb one\_year\_update  
 text career\_progression\_notes  
 timestamptz created\_at  
 timestamptz updated\_at  
 }  
  
 %% RELATIONSHIPS %%  
   
 %% Core Career Management  
 persona\_profiles ||--o{ user\_career\_profiles : "guides"  
 persona\_profiles ||--o{ mentorship\_relationships : "informs"  
 persona\_profiles ||--o{ persona\_content\_adaptations : "customizes"  
 persona\_profiles ||--o{ user\_progress : "personalizes"  
   
 user\_career\_profiles ||--o{ career\_transformation\_progress : "tracks"  
 user\_career\_profiles ||--o{ career\_milestones : "defines"  
 user\_career\_profiles ||--o{ user\_portfolio\_projects : "guides"  
 user\_career\_profiles ||--o{ user\_skill\_assessments : "assesses"  
 user\_career\_profiles ||--o{ interview\_preparation : "prepares"  
 user\_career\_profiles ||--o{ job\_applications : "applies\_through"  
 user\_career\_profiles ||--o{ career\_outcomes : "achieves"  
 user\_career\_profiles ||--o{ user\_progress : "contextualizes"  
  
 %% Enhanced Curriculum Hierarchy  
 curriculum\_modules ||--o{ curriculum\_components : "contains"  
 curriculum\_components ||--o{ curriculum\_topics : "contains"  
 curriculum\_topics ||--o{ curriculum\_concepts : "contains"  
 curriculum\_concepts ||--o{ content\_chunks : "realizes"  
  
 %% Enhanced Content Management  
 content\_chunks ||--o{ industry\_case\_studies : "exemplifies"  
 content\_chunks ||--o{ content\_role\_variations : "adapts\_for\_role"  
 content\_chunks ||--o{ persona\_content\_adaptations : "adapts\_for\_persona"  
 content\_chunks ||--o{ content\_embeddings : "vectorizes"  
 content\_chunks ||--o{ assessments : "evaluates"  
 content\_chunks ||--o{ user\_progress : "tracks\_learning"  
 professional\_project\_templates ||--o{ user\_portfolio\_projects : "guides"  
  
 %% Mentorship & Coaching System  
 mentor\_profiles ||--o{ mentorship\_relationships : "mentors\_in"  
 mentor\_profiles ||--o{ interview\_preparation : "coaches"  
 mentorship\_relationships ||--o{ career\_coaching\_sessions : "conducts"  
  
 %% Portfolio Management  
 user\_portfolio\_projects ||--o{ project\_reviews : "reviewed\_through"  
  
 %% Skills & Assessment  
 skill\_taxonomy ||--o{ skill\_taxonomy : "parent\_child"  
 skill\_taxonomy ||--o{ user\_skill\_assessments : "evaluates"  
  
 %% AI Avatar Integration  
 ai\_avatar\_roles ||--o{ content\_role\_variations : "customizes"  
 ai\_avatar\_roles ||--o{ user\_progress : "delivers"  
  
 %% Vector Search & Embeddings  
 embedding\_models ||--o{ content\_embeddings : "generates"  
  
 %% Assessment System  
 assessments ||--o{ assessment\_options : "has\_options"  
 assessments ||--o{ assessment\_test\_cases : "has\_test\_cases"

**Simplified Career Transformation Flow**

erDiagram  
 %% Core Career Transformation Flow  
 USER\_CAREER\_PROFILES ||--o{ CAREER\_TRANSFORMATION\_PROGRESS : tracks  
 USER\_CAREER\_PROFILES ||--o{ MENTORSHIP\_RELATIONSHIPS : engages\_in  
 USER\_CAREER\_PROFILES ||--o{ USER\_PORTFOLIO\_PROJECTS : develops  
 USER\_CAREER\_PROFILES ||--o{ INTERVIEW\_PREPARATION : prepares\_for  
 USER\_CAREER\_PROFILES ||--o{ JOB\_APPLICATIONS : submits  
 USER\_CAREER\_PROFILES ||--o{ CAREER\_OUTCOMES : achieves  
   
 MENTOR\_PROFILES ||--o{ MENTORSHIP\_RELATIONSHIPS : provides  
 MENTORSHIP\_RELATIONSHIPS ||--o{ CAREER\_COACHING\_SESSIONS : includes  
   
 PROFESSIONAL\_PROJECT\_TEMPLATES ||--o{ USER\_PORTFOLIO\_PROJECTS : guides  
 USER\_PORTFOLIO\_PROJECTS ||--o{ PROJECT\_REVIEWS : receives  
   
 CONTENT\_CHUNKS ||--o{ INDUSTRY\_CASE\_STUDIES : includes  
 CONTENT\_CHUNKS ||--o{ USER\_PROGRESS : enables  
   
 SKILL\_TAXONOMY ||--o{ USER\_SKILL\_ASSESSMENTS : measures  
   
 EMPLOYER\_FEEDBACK ||--|| CAREER\_OUTCOMES : validates

**Career Transformation Architecture Overview**

graph TB  
 subgraph "Career Assessment & Planning Layer"  
 A[user\_career\_profiles] --> B[Career Goals & Background]  
 C[industry\_sectors] --> D[Market Intelligence]  
 E[persona\_profiles] --> F[Learning Personalization]  
 end  
   
 subgraph "Mentorship & Coaching Layer"   
 G[mentor\_profiles] --> H[Expert Network]  
 I[mentorship\_relationships] --> J[1:1 Guidance]  
 K[career\_coaching\_sessions] --> L[Structured Support]  
 M[career\_milestones] --> N[Achievement Tracking]  
 end  
   
 subgraph "Enhanced Content Delivery Layer"  
 O[content\_chunks] --> P[Career-Contextualized Learning]  
 Q[industry\_case\_studies] --> R[Real-World Examples]  
 S[professional\_project\_templates] --> T[Portfolio Guidance]  
 U[ai\_avatar\_roles] --> V[Multi-Role AI Support]  
 end  
   
 subgraph "Skills Development & Assessment Layer"  
 W[skill\_taxonomy] --> X[Industry-Aligned Skills]  
 Y[user\_skill\_assessments] --> Z[Competency Tracking]  
 AA[assessments] --> BB[Career-Focused Evaluation]  
 end  
   
 subgraph "Portfolio & Project Management Layer"  
 S --> CC[user\_portfolio\_projects]  
 CC --> DD[project\_reviews]  
 CC --> EE[Showcase-Ready Projects]  
 end  
   
 subgraph "Job Search & Interview Preparation Layer"  
 FF[interview\_preparation] --> GG[Interview Readiness]  
 HH[job\_applications] --> II[Application Tracking]  
 GG --> JJ[Mock Interviews & Practice]  
 end  
   
 subgraph "Career Transformation Tracking Layer"  
 A --> KK[career\_transformation\_progress]  
 KK --> LL[Multi-Dimensional Progress]  
 KK --> MM[Readiness Scoring]  
 end  
   
 subgraph "Outcome & Feedback Layer"  
 NN[career\_outcomes] --> OO[Placement Success]  
 PP[employer\_feedback] --> QQ[Industry Validation]  
 OO --> RR[Career Transformation ROI]  
 end  
   
 subgraph "Enhanced Analytics & Intelligence Layer"  
 SS[content\_embeddings] --> TT[Career-Contextual Search]  
 UU[mv\_career\_transformation\_metrics] --> VV[Success Analytics]  
 WW[mv\_mentorship\_effectiveness] --> XX[Mentor Performance]  
 YY[mv\_career\_content\_effectiveness] --> ZZ[Content ROI]  
 end  
   
 %% Cross-layer connections  
 B --> P  
 H --> P  
 X --> P  
 P --> LL  
 EE --> GG  
 GG --> II  
 II --> OO  
 OO --> QQ  
 QQ --> VV  
   
 style A fill:#e1f5fe  
 style G fill:#fff3e0  
 style O fill:#f3e5f5  
 style KK fill:#e8f5e8  
 style NN fill:#fce4ec

**Key Career Transformation Features**

mindmap  
 root((Career Transformation Platform))  
 Career Assessment  
 Industry Analysis  
 Skills Gap Analysis  
 Career Stage Tracking  
 Goal Setting & Planning  
 Mentorship Ecosystem  
 Expert Mentor Network  
 1:1 Relationship Management  
 Coaching Session Tracking  
 Progress Monitoring  
 Portfolio Development  
 Project Templates  
 Industry Case Studies  
 Peer & Expert Reviews  
 Showcase Preparation  
 Skills Development  
 Industry-Aligned Taxonomy  
 Competency Assessments  
 Progress Tracking  
 Certification Pathways  
 Interview Preparation  
 Mock Interview System  
 Industry-Specific Prep  
 Confidence Building  
 Performance Tracking  
 Job Search Support  
 Application Tracking  
 Company Research  
 Networking Opportunities  
 Outcome Monitoring  
 Success Analytics  
 Transformation Metrics  
 Placement Rates  
 Salary Outcomes  
 ROI Analysis