

Cyber Talent Initiative – Mentoring Individuals and Nurturing Talent (MINT)

- A framework for AI enhanced mentorship
- Presented by: Connor Moore and Dr. Bryson Payne
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- Theme: Empowering individuals through personalized mentorship and AI-driven learning



Introduction

- **Objective of MINT:**

- To develop a comprehensive mentorship model that leverages AI technology for skills enhancement and professional training.

- **Key Goals:**

- Create a personalized learning environment that addresses individual career aspirations.

- Facilitate access to mentorship for diverse populations, particularly those with limited resources.

- **Significance:**

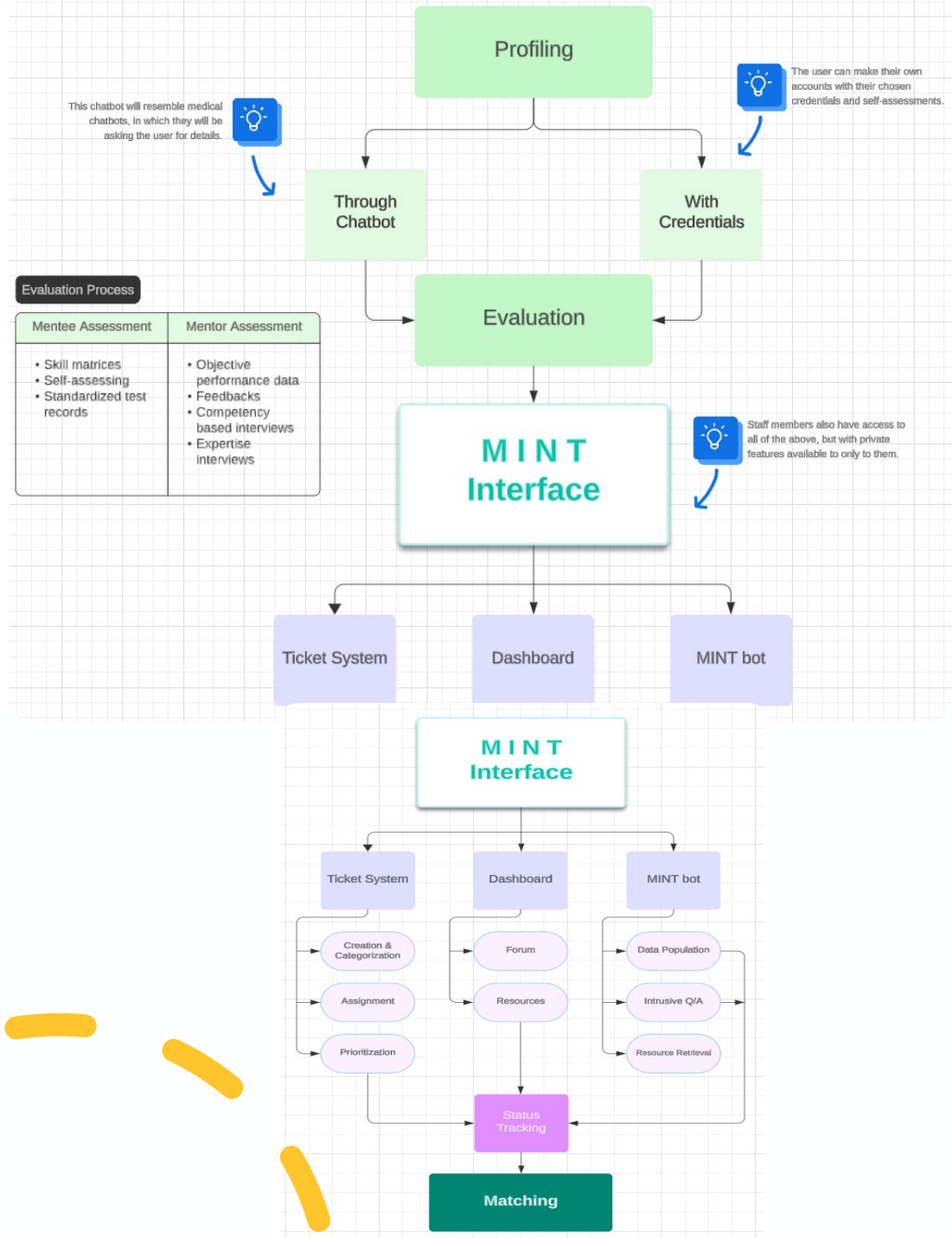
- Responds to the growing demand for tailored career guidance in an evolving job market.

- Aims to bridge the gap between traditional mentorship and the needs of modern learners.

Current Limitations

- **Lack of Personalization:** Many programs adopt a one-size-fits-all approach, failing to meet diverse learner needs.
- **Limited Accessibility:** Qualified mentors are often hard to reach, especially in remote areas or for those with fewer resources.
- **Absence of Personal Mentor Interaction:** AI systems miss the personal touch of human mentors, hindering trust and relationship building.
- **Undefined Learning Pathways:** Existing platforms often lack structured pathways for skill development.
- **Enhanced Support Systems:** There's a demand for mentorship solutions that blend AI with essential human guidance.
- **24/7 Accessibility:** Continuous access to resources and mentors is crucial for ongoing learning.

Innovative Approach



•AI Conversation-Based Learning Environment:

Engages users through interactive, natural conversations.

•Learning Bubbles:

Modular units focusing on specific skills, allowing personalized navigation based on interests.

•Ticket System for Support:

Users can submit queries, routed to mentors for tailored assistance.

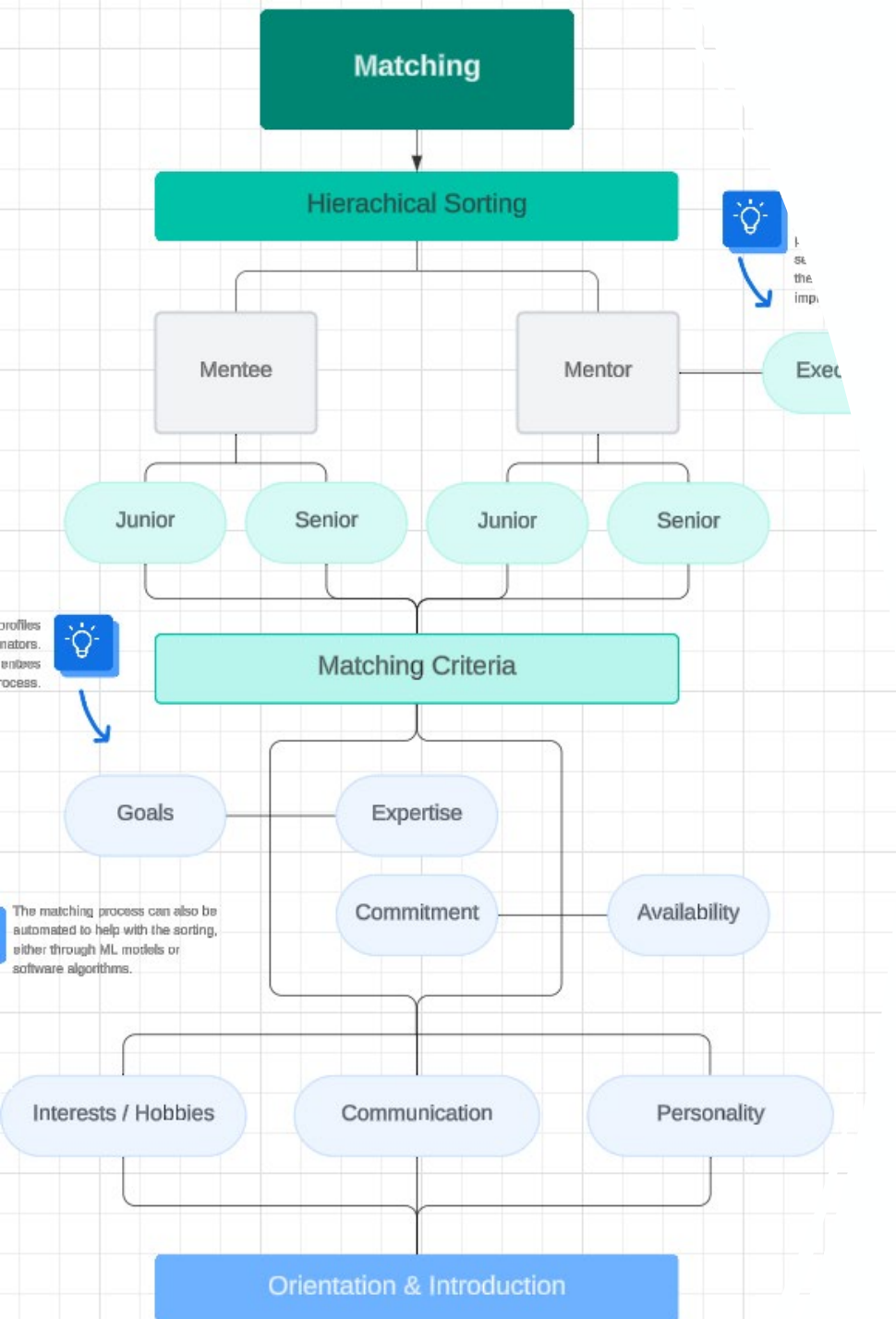
•1-on-1 Mentorship:

Combines AI with human guidance for customized support from professionals.

•24/7 Accessibility:

Offers round-the-clock access to resources and mentorship to meet diverse learning needs.

System Overview



- Key Features

- Personalized Job Analysis:**

Suggests job opportunities based on user skills and interests.

- Certification and Skills Tracking:**

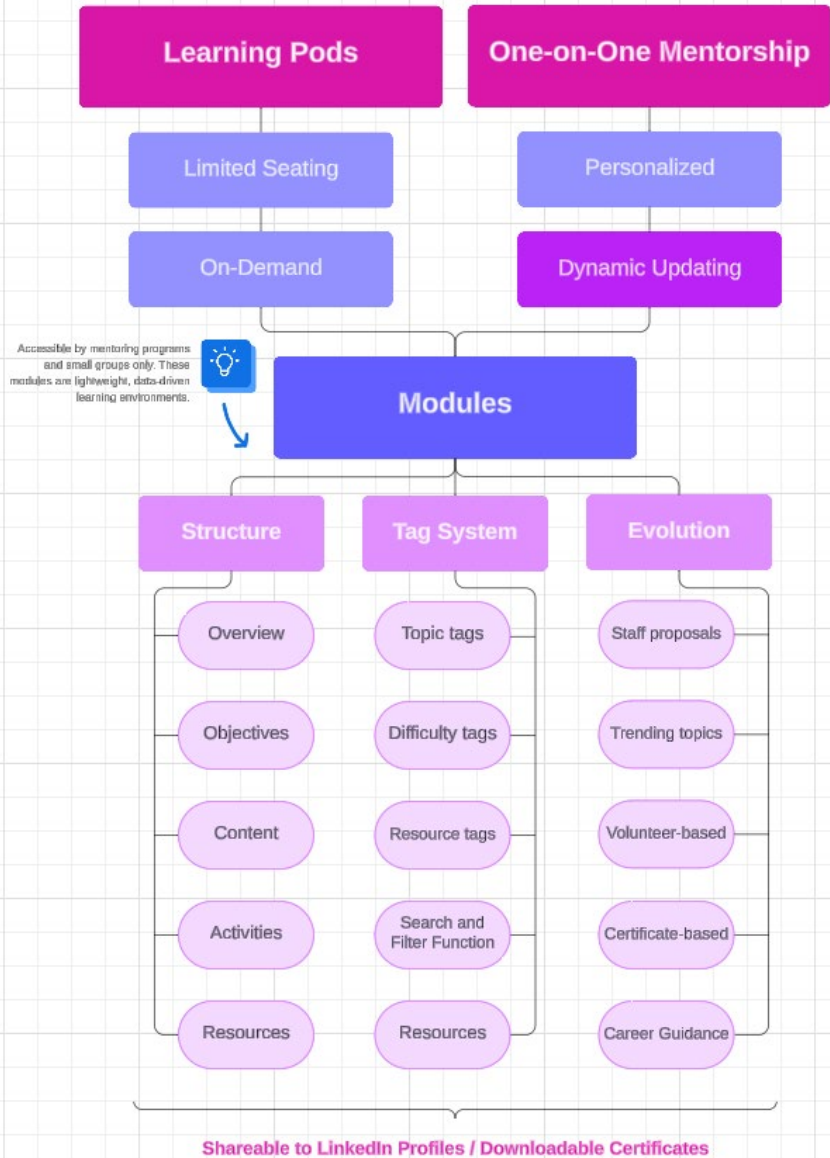
Identifies necessary certifications and skills for career paths.

- Goal Tracking Mechanism:**

Converts user goals into actionable objectives and monitors ongoing progress.

- Request Queue Functionality:**

- Users submit questions via a ticketing system for personalized mentor responses.



• Junior Mentors:

Early-career individuals providing guidance while developing their mentoring skills, focusing on new entrants and recent graduates.

• Senior Mentors:

Experienced professionals offering advanced support to junior mentees, preparing them for leadership roles.

• Executive Mentors:

Senior executives providing strategic mentoring and overseeing the mentorship program's success.

• Mentor Responsibilities:

- Facilitate skill development and career planning.
- Provide tailored resources based on their expertise.
- Engage in regular check-ins with mentees to assess progress.

• Automated Matching:

User's complete profiles detailing goals, skills, and preferences for optimal mentor matches based on expertise and availability.

• Feedback Loop:

Mentees can provide feedback to enhance the mentoring experience.

Learning Pods and Modules

- **Key Features**

- **Topic-Based Modules:**

Cover diverse subjects relevant to career development (e.g., Neuroscience, Advanced Pen Testing).

- **Tagging System:**

- Facilitates easy navigation by categorizing modules based on:

- **Topic Tags:** Specific subjects.

- **Difficulty Tags:** Levels (Beginner, Intermediate, Advanced).

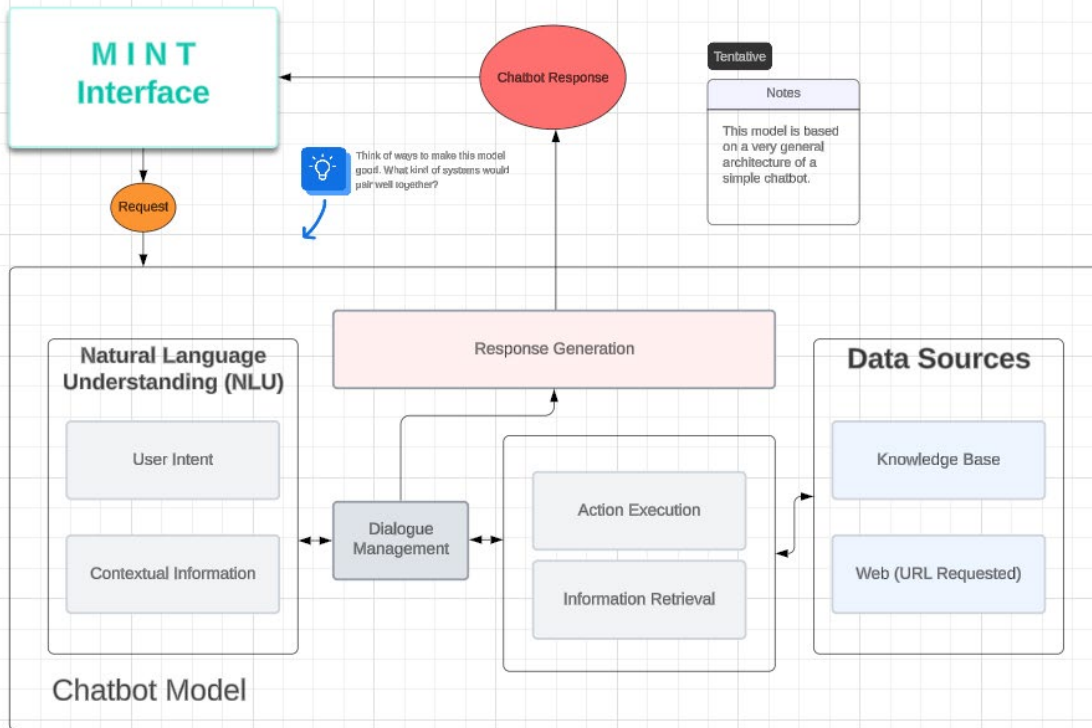
- **Resource Tags:** Types of materials (lectures, videos, quizzes).

- **Accessibility and Flexibility:**

Available 24/7 for self-paced learning, suitable for independent learners and those in mentoring.

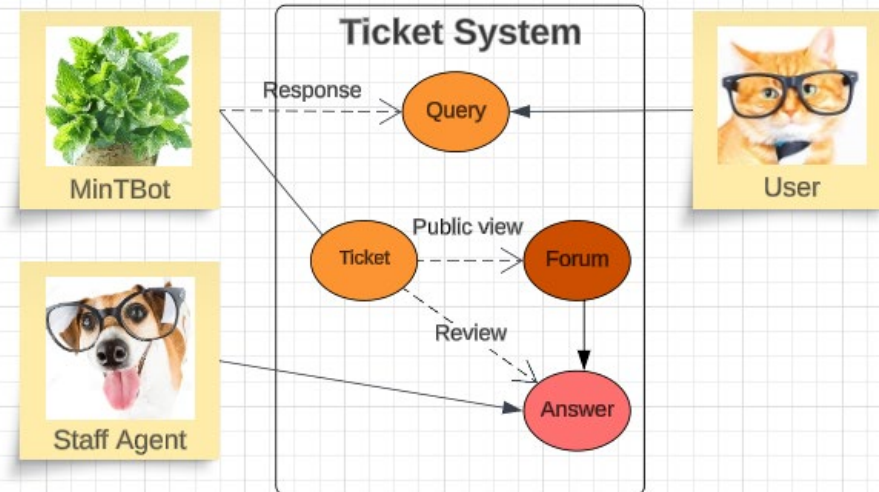
- **Integration with Mentorship:**

Mentors can recommend modules tailored to mentee needs and enhance learning with specific resources.



Ticket System

A ticketing system creates a support ticket or a record of every support interaction. The ticket is then assigned to a customer support agent who helps the customer resolve their issue. The ticketing management system logs all communication between the customer and the agent into a single thread. Usually employee-generated, but automated tickets may also be created when specific incidents occur and are flagged.



Evaluation Metrics

- Purpose:**

Ensure the MINT framework meets user needs and promotes skill development through continuous improvement based on feedback and performance data.

- Skill Assessments:**

Regular evaluations using self-assessments and standardized tests to measure proficiency.

- Project-Based Evaluations:**

Real-world projects for users to showcase skills, with feedback from mentors and peers.

- Peer Reviews:**

Structured feedback where peers evaluate each other, fostering collaboration and constructive criticism.

- Feedback Mechanisms:**

- Surveys and Questionnaires:**

Regular surveys to assess user satisfaction and identify improvement areas, including Net Promoter Score (NPS).

•**Regular Audits and Updates:**

Conduct systematic evaluations of the MINT framework to identify strengths and areas for enhancement based on user feedback and data analytics.

•**Broader Skill Development Resources:**

Integrate new training modules for emerging fields and expand partnerships with educational institutions and industry leaders.

•**Enhanced User Experience:**

Collaborate with platforms like LinkedIn for seamless access to job opportunities and networking, allowing users to showcase skills and certifications.

•**AI Enhancements:**

Continuously refine AI algorithms for better job matching, mentorship pairings, and personalized recommendations, while exploring advanced natural language processing for improved user interactions.

•**Scalability:**

Plan for growth to accommodate a larger user base while maintaining personalized support and explore international expansion to reach diverse populations.

•**Summary of MINT:**

•**Objective:** Revolutionize mentorship with an AI-enhanced framework for personalized support and skill development.

•**Key Features:**

- AI conversation-based learning environment with structured learning pods and modules tailored to individual needs.
- A ticketing system for mentor support and inquiries with continuous evaluation and feedback mechanisms to ensure effectiveness.

•**Impact:**

•Addresses the growing demand for accessible, personalized mentorship in an evolving job market. This empowers users to take charge of their professional development through tailored resources and guidance.

•**Future Directions:**

- Commitment to continuous improvement and expansion of capabilities.
- Plans for integration with professional platforms and enhancement of AI functionalities.

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