PANIMALAR
ENGINEERING COLLEGE
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A Christian Minority Institution
(JAISAKTHI EDUCATIONAL TRUST)
Approved by All India Council for Technical Education

Department of Computer Science and Engineering

23CS1512 Socially Relevant Mini Project

NEUROBRIDGE – AN AI POWERED CAREER SUPPORT SYSTEM FOR NEURODIVERGENT INDIVIDUALS

SDG GOALS

SDG 8: Decent Work and Economic Growth
SDG 4: Quality Education
SDG 10: Reduced Inequalities
SDG 9: Industry, Innovation, and Infrastructure

BATCH NUMBER : A23
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Date : 29/10/2025

TEAM DETAILS

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Domain: Artificial Intelligence

Coordinator Name & Designation

Dr.Kavitha Subramani Professor

ABSTRACT

- Existing job platforms lack accessibility features for neurodivergent users.
- The system uses a simplified UI with structured layouts and low cognitive load.
- Real-time assistance and emotional support modules enhance user engagement.
- Supabase (PostgreSQL) ensures fast and secure data storage for quizzes and user records.
- GPT-4 (via OpenAI API) generates adaptive quizzes and personalized feedback dynamically.
- Supabase Edge Functions handle logic for Text Match and plagiarism detection.
- Gamified learning and feedback loops promote continuous skill development.
- The platform advances inclusive hiring through AI-driven personalization and accessibility-first design.

INTRODUCTION

1. Neurodivergent users face usability challenges on traditional job portals due to cluttered design and dense text.

2. The system applies accessibility principles to simplify layout, navigation, and content delivery.

3. Supabase (PostgreSQL) ensures fast, reliable data management for user profiles, quizzes, and progress tracking.

4. Edge Functions in Supabase handle server-side logic for dynamic content updates.

5. GPT-4 (OpenAI API) generates adaptive quizzes and personalized feedback using natural language processing.

6. Text Match Algorithm (Supabase Edge Function) verifies originality and prevents plagiarism.

7. Gamified quiz modules and feedback loops enhance engagement and user motivation.

8. Adaptive learning models monitor user performance and offer real-time guidance.

INTRODUCTION

9. The platform gives employers analytic insights to support inclusive hiring decisions.

10. NeuroBridge integrates AI, accessibility, and assistive design to create an equitable digital employment ecosystem

11. The platform uses a hybrid recommendation algorithm to match users with suitable career opportunities.

12. Real-time monitoring detects user struggles and triggers supportive prompts or guidance.

13. The architecture ensures data security, scalability, and consistent system performance across all user interactions.

OBJECTIVES

1. To design an accessible and inclusive job platform tailored for neurodivergent users.

2. To implement Supabase (PostgreSQL) for secure, efficient data storage and management.

3. To integrate GPT-4 for generating adaptive quizzes and personalized feedback using AI.

4. To develop Edge Functions that support real-time user monitoring and feedback processing.

5. To apply a Text Match Algorithm for plagiarism detection and content originality.

6. To enhance learning engagement through gamified interfaces and adaptive interaction design.

7. To employ analytics and recommendation algorithms that connect users with suitable opportunities and help employers evaluate inclusivity.

8. To ensure system scalability and seamless performance across devices through optimized database architecture and responsive design.

LITERATURE REVIEW

No.	Paper Title	Authors	Concept Summary
1	Autistic employees' technology-based workplace accommodation preferences survey—Preliminary findings	Tomczak, M. T., & Ziemiański, P. (2023)	Explores the types of technology-based accommodations preferred by autistic employees to improve workplace inclusion.
2	"I felt pressured to give 100% all the time": How are neurodivergent professionals being included in software development teams?	Menezes, N. da S., da Rocha, T. Á., Camelo, L. S. S., & Mota, M. P. (2025)	Examines challenges and inclusion practices for neurodivergent professionals in the software industry.
3	Designing for strengths: Opportunities to support neurodiversity in the workplace	Hall, K., Arora, P., Lowy, R., Kim, J. G., Mcdonald, K. M., & Mankoff, J. (2024)	Focuses on designing workplace systems that emphasize neurodivergent strengths and inclusive collaboration.
4	Hybrid information filtering engine for personalized job recommender system	Heggo, I., & Abdelbaki, N. (2018)	Proposes a hybrid job recommendation algorithm combining content and collaborative filtering for improved matching.
5	Collaborative design for job-seekers with autism: A conceptual framework for future research	Hong, S. R., Zampieri, M., Hand, B. N., Motti, V., Chung, D., & Uzuner, O. (2024)	Presents a framework for co-designing digital tools that help autistic job-seekers engage effectively with employment systems.

LITERATURE REVIEW

No.	Paper Title	Authors	Concept Summary
6	Making better job hiring decisions using “human in the loop” techniques	Harris, C. G. (2018)	Explores integrating human oversight into job hiring algorithms to improve decision quality and inclusivity.
7	Collaborative job seeking for people with autism: Challenges and design opportunities	Ara, Z., Ganguly, A., Peppard, D., & Hong, S. R. (2024)	Identifies collaboration challenges and offers design solutions for autism-friendly job searching platforms.
8	Neurodivergence and the workplace: A systematic review of the literature	Saleh, J., et al. (2025)	Reviews workplace experiences, barriers, and best practices for supporting neurodivergent employees.
9	Mapping the lacunae between neurodivergent individuals and work organizations	Nair, V. S. (2025)	Analyzes gaps between neurodivergent workers and organizational support structures in employment settings.
10	Understanding the experience of neurodivergent workers in image and text data annotation	Johnson, S. P., et al. (2023)	Examines accessibility and inclusion issues faced by neurodivergent workers in tech-focused annotation tasks.

LITERATURE REVIEW

No.	Paper Title	Authors	Concept Summary
11	Human-in-the-loop in artificial intelligence in education: A review and entity-relationship analysis	Memarian, B., et al. (2024)	Reviews how human involvement in AI supports personalized education and adaptation for diverse learners.
12	Exploring neurodiversity in the workplace: Perspectives on inclusion, accommodations, and employment outcomes	Kapp, E. E., Byers, S. M., Lawson, L. L., & Ougrin, C. F. (2023)	Investigates workplace inclusion strategies, accommodations, and outcomes for neurodivergent employees.
13	Cognitive and neurodiversity in groups: A systemic and integrative review	van Rijswijk, J., Curșeu, P. L., & van Oortmerssen, L. A. (2024)	Reviews group dynamics and cognitive diversity, highlighting system-wide implications for team performance.
14	Career progression for autistic people: A scoping review	Davies, J., et al. (2024)	Surveys research on career development and advancement challenges for autistic individuals.
15	Physical workplace adjustments to support neurodivergent workers: A systematic review	Weber, C., Krieger, B., Häne, E., Yarker, J., & McDowall, A. (2024)	Systematically reviews effective workplace adaptations to support neurodivergent employees' well-being and productivity.

PROBLEM STATEMENT

1. Job portals often have complicated layouts and too much text, overwhelming neurodivergent users.

2. Features like multitasking and complex steps make these sites hard for people with autism, ADHD, or dyslexia to use.

3. Neurodivergent adults have much higher unemployment rates because these platforms do not meet their needs.

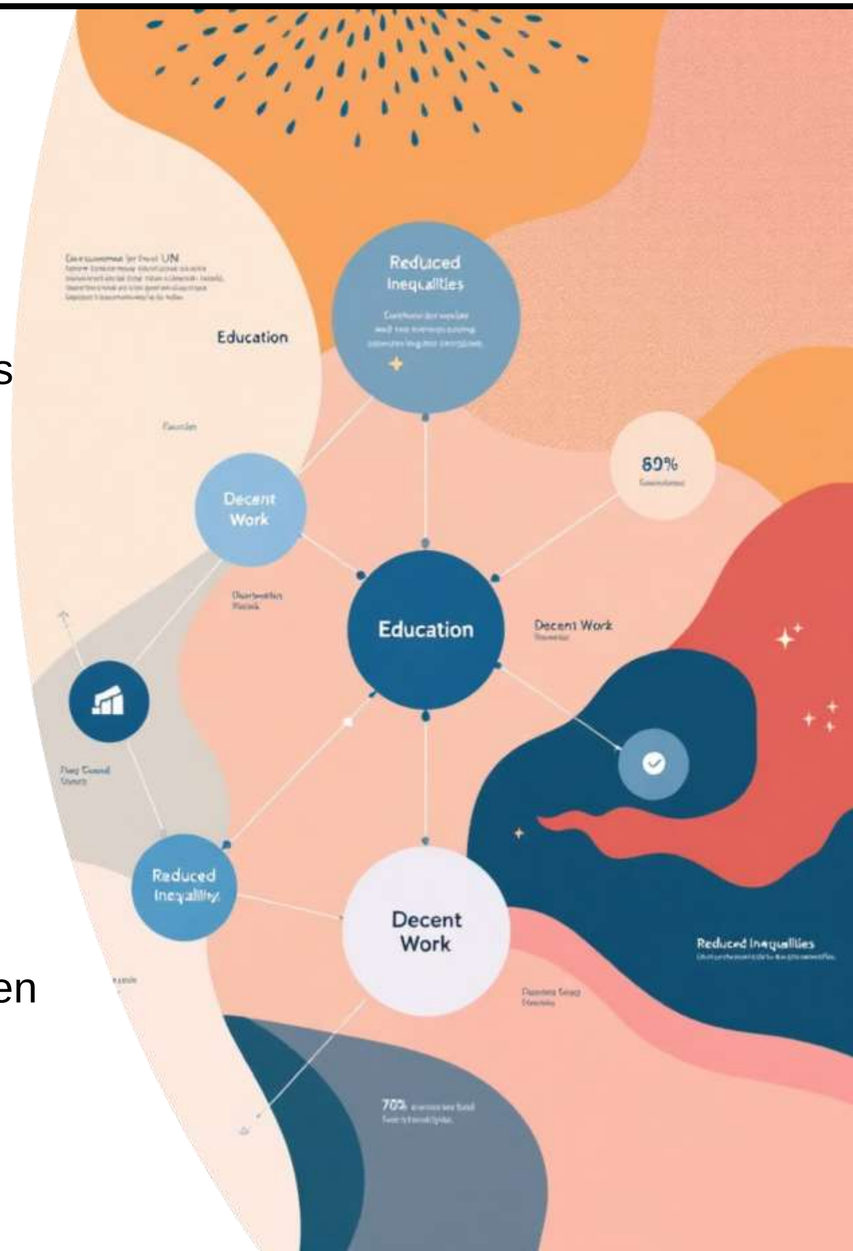
4. Most job websites do not adjust for different attention spans, sensory needs, or ways people understand information.

5. Profile creation, job searching, and applying online are frustrating and not designed for clear accessibility.

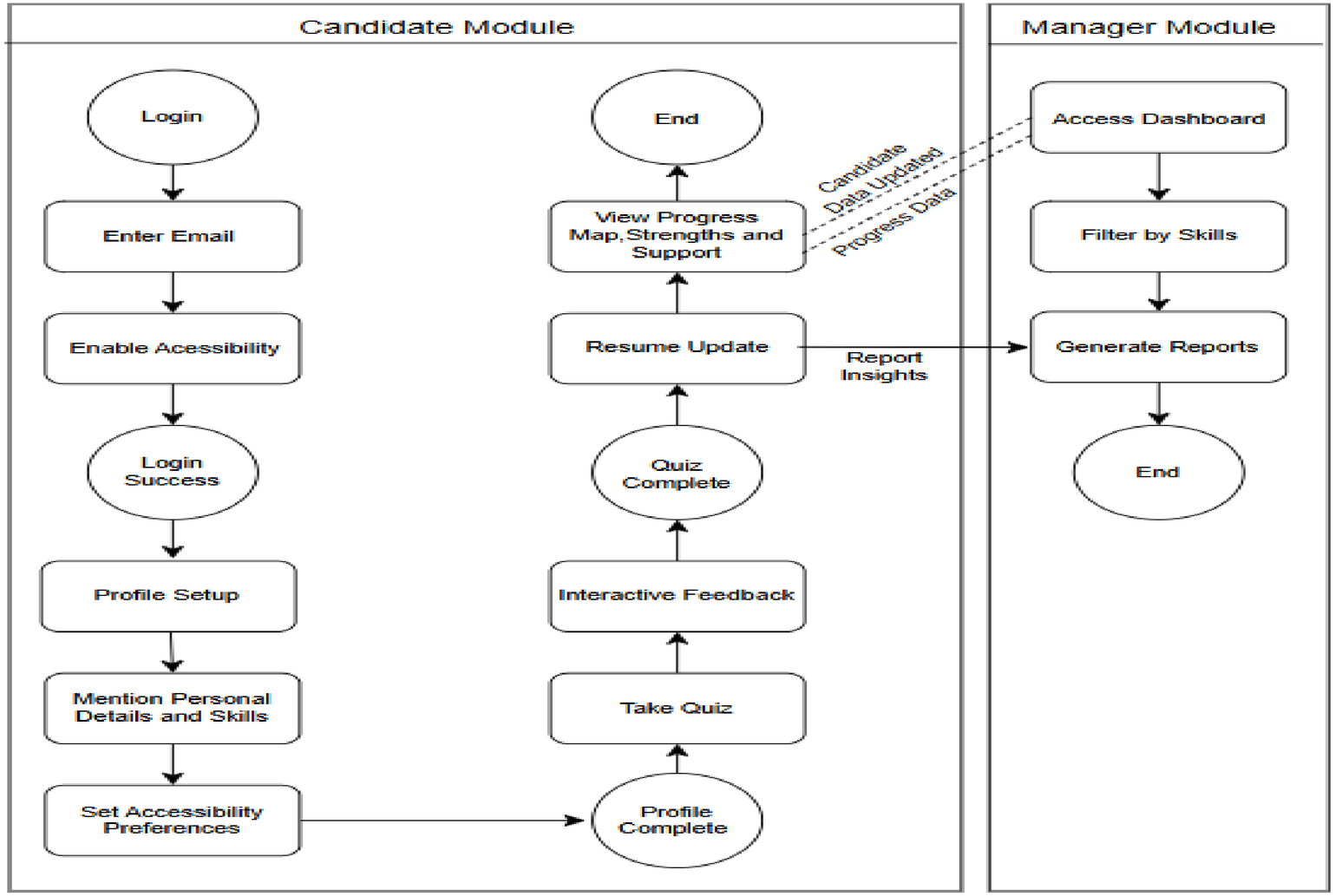
6. These platforms mostly use simple keyword searches, so job suggestions don’t match the user’s real needs or comfort.

7. Accessibility tools are limited and don’t provide real-time help or emotional support when users feel anxious.

8. There are no smart systems that adapt in real time to help neurodivergent users whenever they struggle on the platform.



ARCHITECTURE DIAGRAM

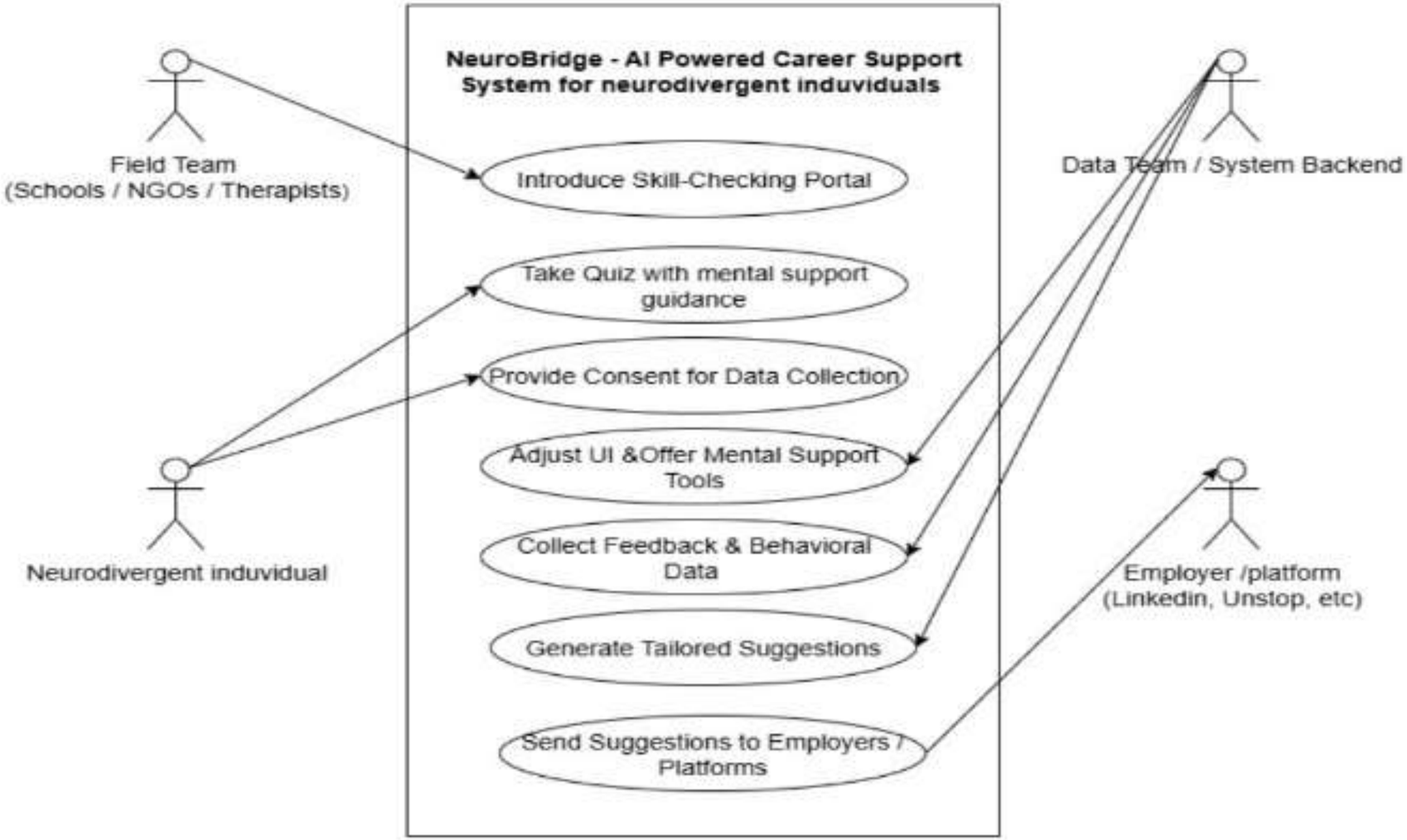


1. The Candidate Module guides users through a workflow starting from login, entering email, enabling accessibility, setting up profile with personal details and skills, taking a quiz, receiving interactive feedback, updating their resume, and finally viewing a progress map with strengths and support options.

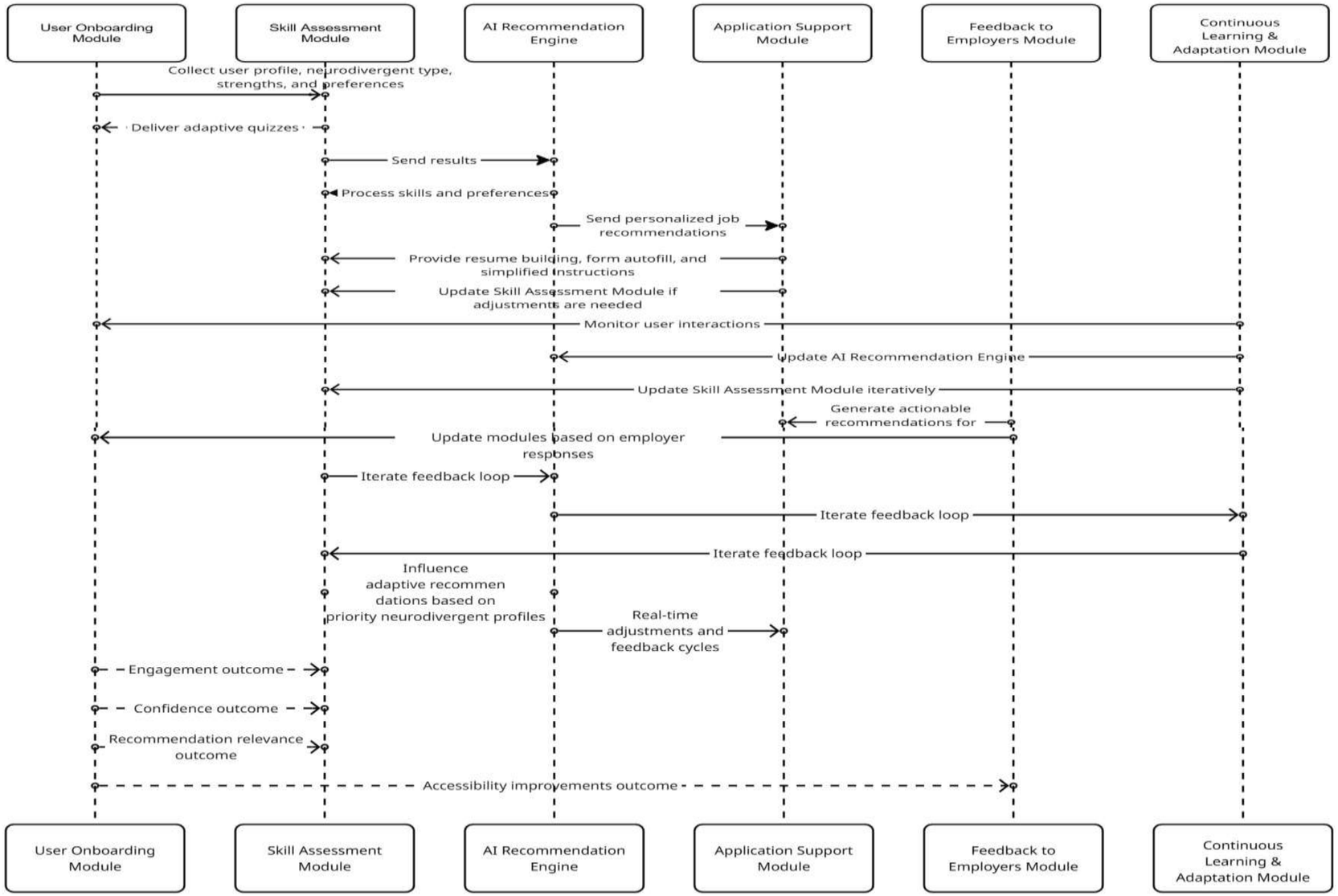
2. The Candidate Module continuously updates candidate data and progress information, which is shared with the Manager Module to generate reports and insights based on skill filtering.

3. The Manager Module is responsible for accessing the dashboard, filtering candidates by skills, generating reports from this filtered data, and concluding the process, facilitating managerial oversight and decision-making.

USE CASE DIAGRAM



SEQUENTIAL DIAGRAM



TECHNOLOGIES USED

- **React with TypeScript (.tsx):** Modern frontend library using JSX and type safety for robust UI development.
- **Vite**: Lightning-fast build tool and development server for modern frontend projects.
- **Tailwind CSS**: Utility-first CSS framework for rapid, consistent, and responsive user interface styling.
- **Supabase (supabase-js):** Open-source backend platform providing database, authentication, and real-time features.
- **GPT-4 (OpenAI):** Integrated AI model for intelligent features such as automated question generation or assistance.
- **CSS**: Used alongside Tailwind for additional styles and responsive layout.
- **.env files**: For managing sensitive configuration and environment variables.
- **JSON**: Employed for app configuration, structured data, and Supabase queries/responses.

MODULES

1. **User Input**: The candidate or manager interacts with the platform (e.g., submits profile info, attempts quiz, reviews dashboard).

2. **Accessibility Detection**: The system applies adaptive accessibility features (like TTS, calm mode, dyslexia fonts) by detecting user's chosen preferences or needs.

3. **Adaptive Assessment**: For candidates, quiz and learning tasks are personalized in real time, using AI algorithms that adjust question style, difficulty, and feedback.

4. **Progress and Skill Tracking**: All user interactions, quiz scores, and goal completions are measured and visualized in dashboards. Adaptive analytics monitor learning pace and areas needing support.

5. **Resume & Report Generation**: When candidates achieve milestones, the system automatically updates resumes and skill portfolios. Managers can generate reports with filtered data and recommendations.

6. **Mental Support Guidance**: Real-time, AI-based mental and emotional support is provided through empathetic interactions and adaptive coaching tailored to user engagement and accessibility needs.

7. **Data Handling**: Every action and preference is securely logged via Supabase for persistent, privacy-compliant storage and future personalization.

8. **Live Dashboard**: A real-time dashboard aggregates accessibility usage and candidate/manager activity for transparent monitoring.

ALGORITHM / METHODOLOGY

- **Supabase Table Algorithm**: Used for real-time CRUD operations on quiz questions and user response data, ensuring low-latency, synchronized interactions across sessions.

- **Edge Function with GPT-4 Integration**: Utilizes serverless functions to dynamically generate personalized quiz content and contextual feedback based on user profile and progress.

- **Text Match Algorithm**: Implements similarity detection and plagiarism checking within edge functions to maintain content originality and user integrity.

- **Local Evaluation Algorithm**: Executes client-side or server-side performance assessments providing instant scoring and adaptive feedback to optimize learning outcomes.

- **Behavioral Analytics Engine**: Collects detailed telemetry including response times, interaction patterns, and adaptive difficulty adjustments, feeding into usability and accessibility analysis.

- **Adaptive Learning Algorithms**: Employ machine learning models to adjust question difficulty, pacing, and reinforcement strategies tailored to individual user behavior and performance trends.

- **Accessibility Configuration Module**: Dynamically adapts UI/UX elements including font rendering, color themes, and input modalities (text-to-speech, voice input) according to user preferences stored in the backend.

- **Real-time Data Synchronization**: Ensures consistent data state across frontend and backend components via WebSockets and Supabase’s real-time listeners, supporting multi-user concurrency and session persistence.

TESTING

1. Functional Testing:

• Validates core features like data capture from user assessments and AI-generated reports.
• Ensures that each module fulfills its specific role during platform operation.

2. Integration Testing:

•Confirms seamless data exchange between system components using backend APIs.
•Tests how different modules work together to deliver a unified experience.

3. Usability and Accessibility Testing:

•Focuses on making the platform easy and comfortable to navigate for neurodivergent users.
•Checks accessibility settings including font readability, contrast levels, and keyboard support.

4. AI Model Validation:

•Verifies accuracy in natural language processing for text simplification and feedback generation.
•Assures relevance and reliability of recommendations produced by AI models.

TESTING

5.Data Analysis and Reporting Testing:

•Assesses whether user struggles and interaction patterns are correctly identified and reported.
•Validates the clarity and usefulness of feedback provided to employers.

6.Performance Testing:

•Measures system responsiveness and data processing speed under real-time conditions.
•Tests platform stability during simultaneous multi-user sessions.

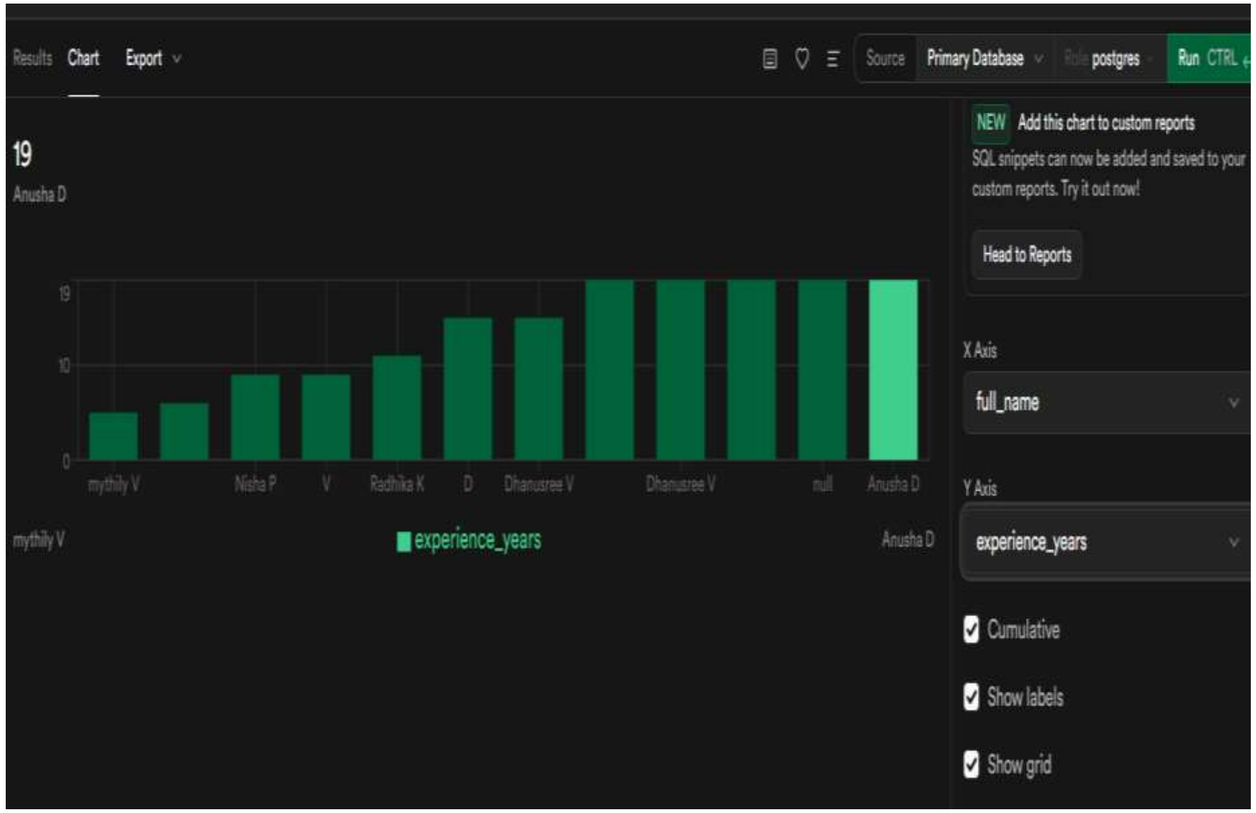
7.Security Testing:

•Ensures user data is securely handled with effective authentication and privacy controls.
•Confirms the system’s compliance with industry security standards.

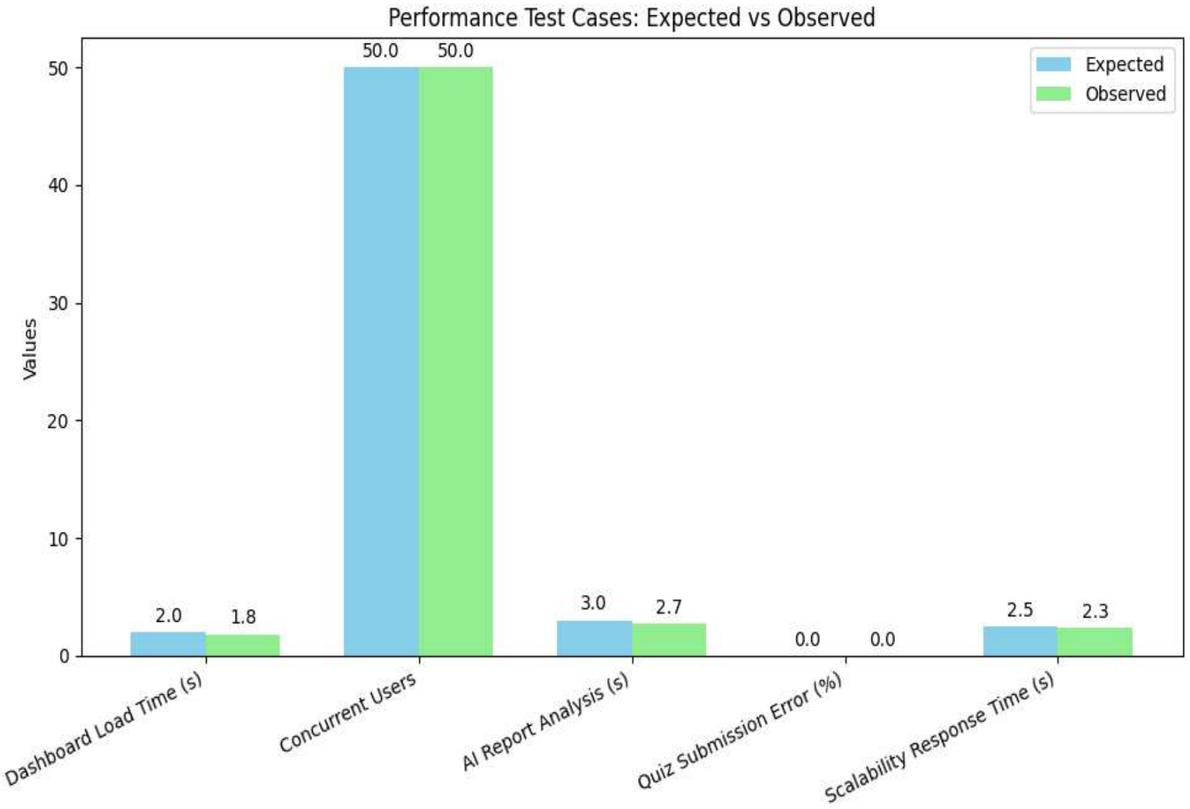
TEST CASES

Test Case ID	Input	Expected Output	Actual Output	Result
TC-01	User completes gamified quiz on skill assessment module	System records accurate behavioral data and quiz responses	System captured data correctly and updated user profile	Passed
TC-02	User interacts with accessibility settings (font size, color mode)	UI adjusts instantly and preferences persist across sessions	Interface updated in real time; preferences stored successfully	Passed
TC-03	User triggers AI-based text simplification request	Simplified and readable version of text generated by NLP models	Simplified output displayed accurately as per user profile	Passed
TC-04	Real-time monitoring of user navigation activity	System identifies recurring accessibility or usability issues	Detected patterns correctly and flagged common pain points	Passed
TC-05	Organization requests recommendation report	System generates relevant, actionable feedback on design and engagement	Report generated with precise, data-driven insights	Passed
TC-06	User login and authentication via Supabase	Access granted only after valid credentials are confirmed	Authentication succeeded without delay or errors	Passed
TC-07	Multi-device interaction test (desktop and mobile)	Consistent layout and performance across browsers and devices	Display and controls consistent on all tested platforms	Passed
TC-08	Data submission under heavy load	System processes and stores data without crashes or lag	Stable performance maintained under load conditions	Passed
TC-09	Access attempt with invalid token	System denies request and redirects to secure login	Security verification worked, blocking unauthorized access	Passed
TC-10	User submits feedback after session	Feedback stored and reflected in analytics dashboard	Data recorded successfully in database and visualized	Passed

PERFORMANCE ANALYSIS

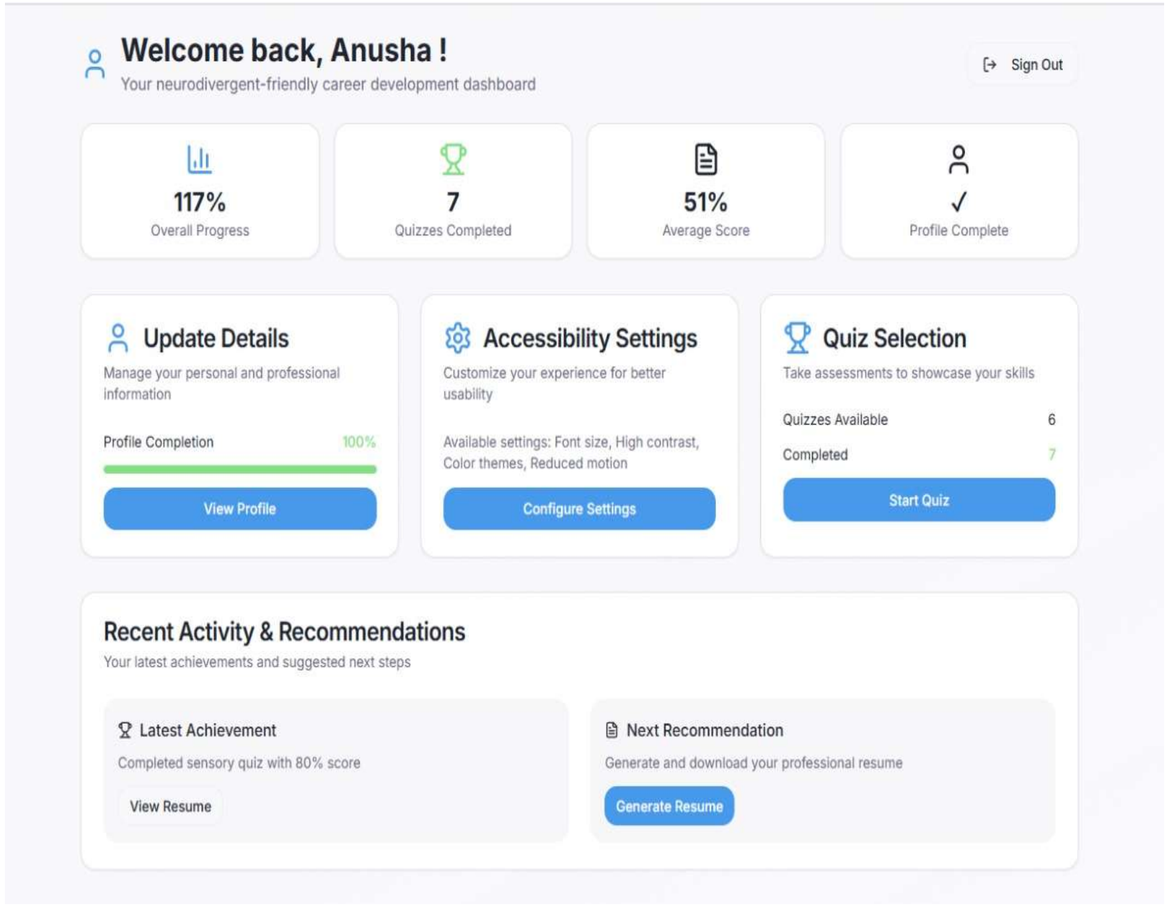


USER EXPERIENCE BY YEARS

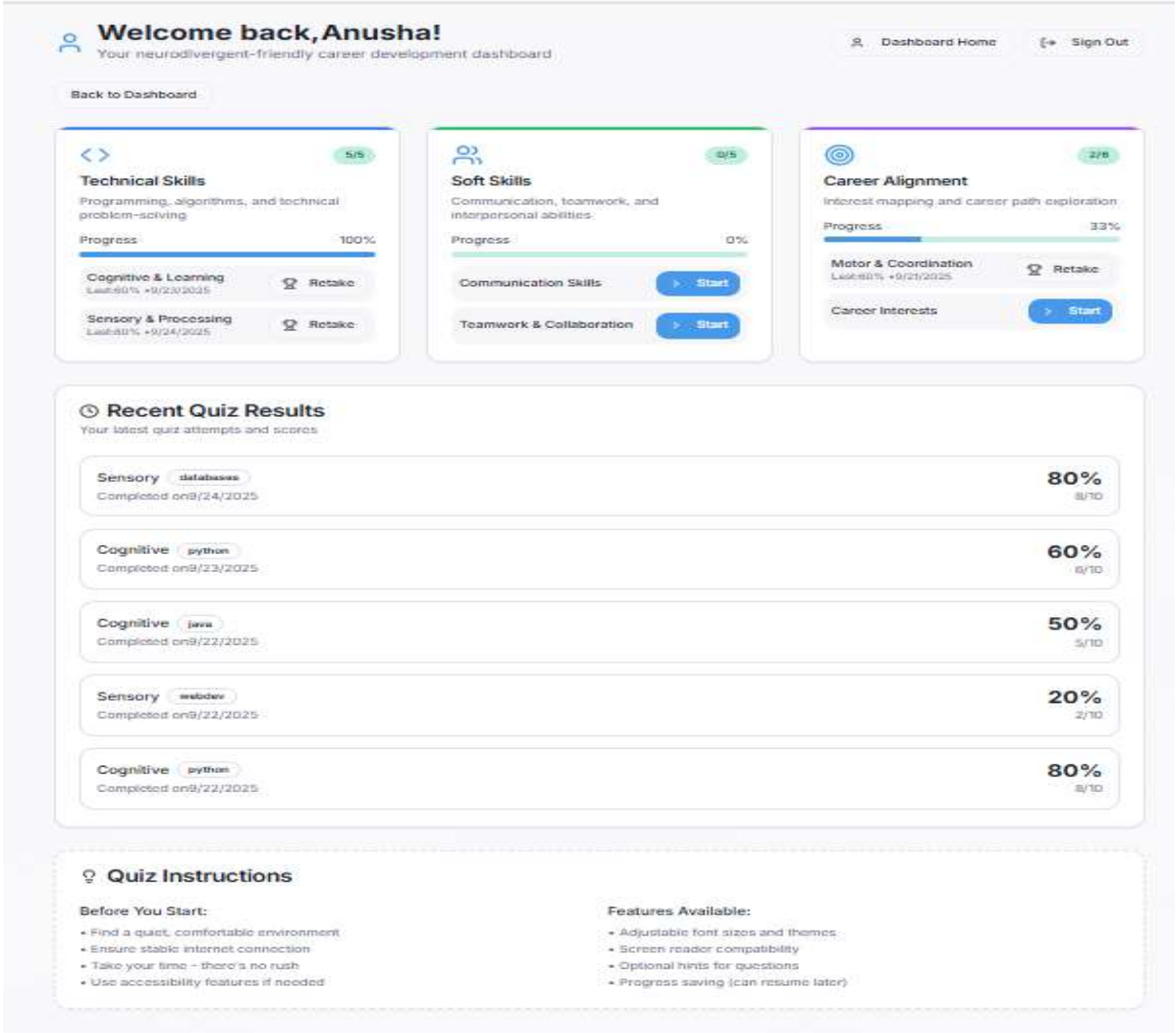


PERFORMANCE TEST CASES – EXPECTED VS OBSERVED

SCREENSHOTS

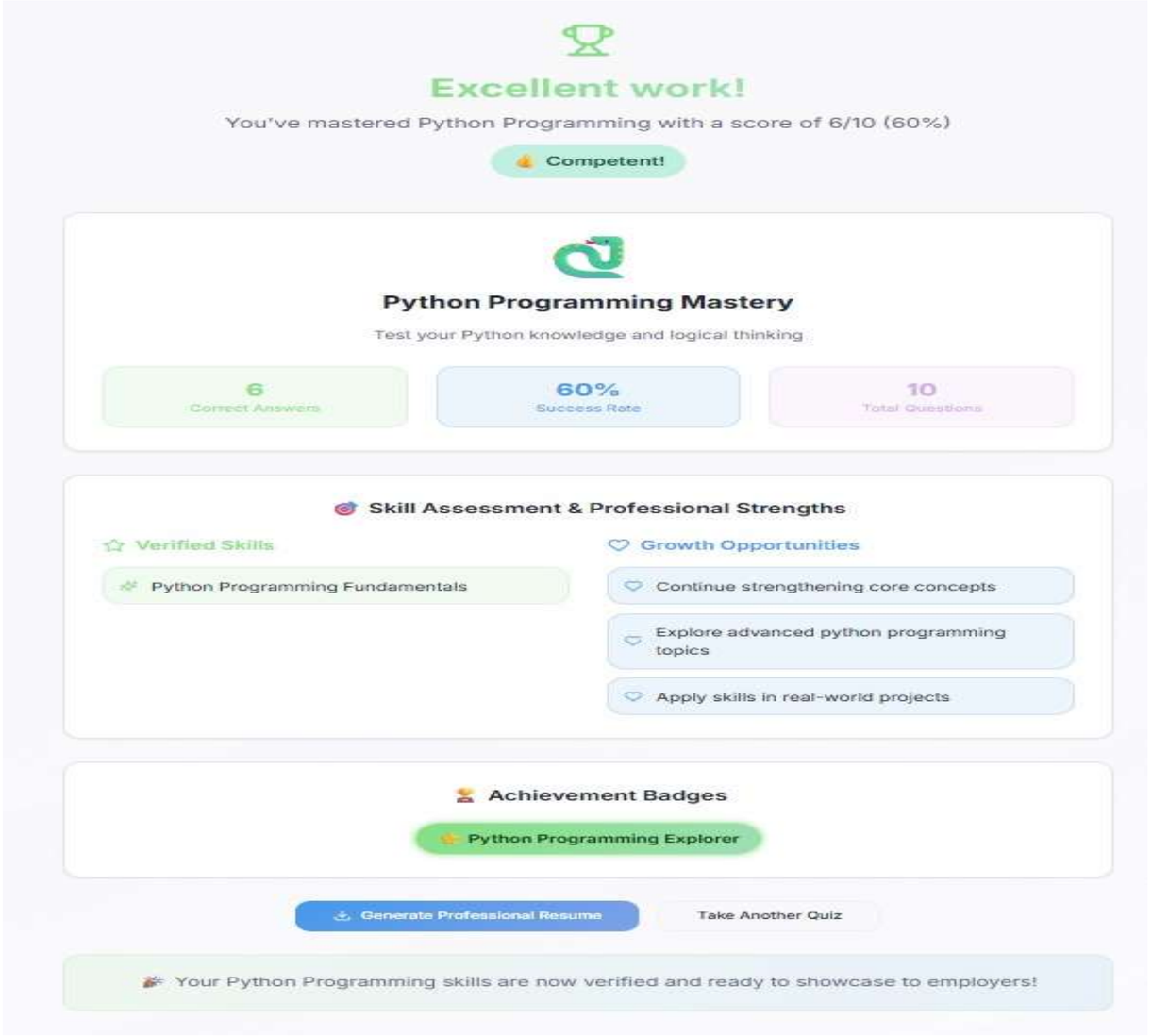


1. Dashboard Screenshot

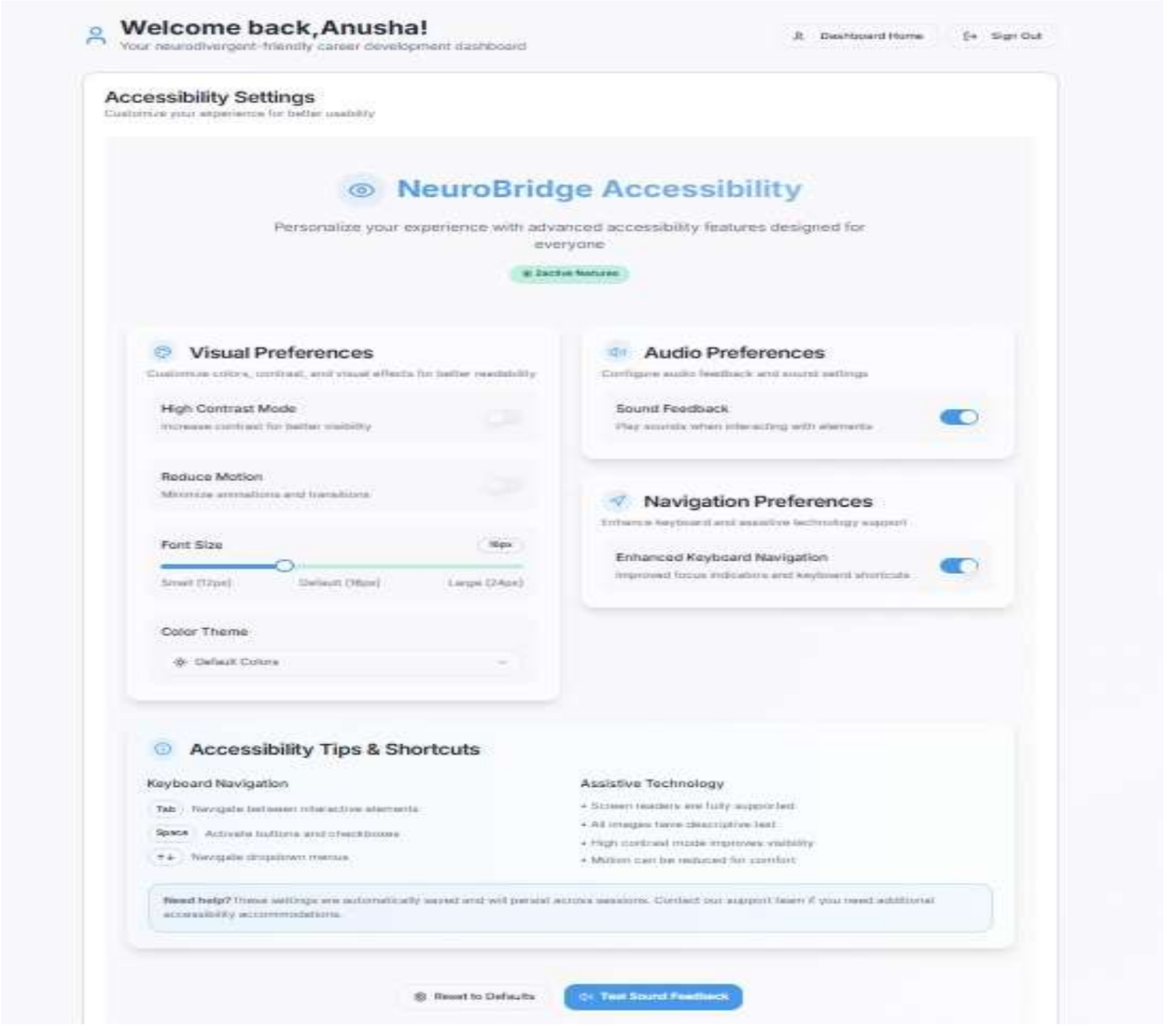


2. Quiz / Task Interface

SCREENSHOTS



3. Job Recommendation Module



4.Accessibility Features

CONCLUSION

- ✓ NeuroBridge creates an inclusive digital environment focused on supporting neurodivergent individuals in their career journeys.
- ✓ The platform emphasizes understanding users' unique challenges and guides companies to improve accessibility.
- ✓ Real-time adaptive learning adjusts task difficulty based on individual performance to maintain motivation.
- ✓ NLP models simplify complex instructions and job descriptions, enhancing comprehension and reducing cognitive load.
- ✓ A hybrid recommendation engine delivers personalized, skill-aligned job opportunities for meaningful employment.
- ✓ The design prioritizes user empowerment, bridging neurodivergent talent with inclusive employers.
- ✓ Despite some limitations like user engagement variability and regional access, NeuroBridge offers pioneering inclusive career support.
- ✓ Key advantages include user-centric accessibility, real-time adaptation, simplified communication, actionable employer insights, gamification, and scalability.

FUTURE WORK

- **Expanded Assessments**: Incorporate additional skill and cognitive tests including soft skills and emotional intelligence to broaden user capability evaluation.
- **Integration with More Job Platforms**: Connect with a wider range of online career portals, internships, freelancing sites, and volunteer opportunities to increase job access.
- **Personalized Learning Paths**: Develop AI-driven customized learning and training programs tailored to individual strengths, weaknesses, and career goals.
- **Collaborations with Educational and Mental Health Institutions**: Expand partnerships with schools, NGOs, universities, and mental health organizations to enhance offline support and outreach.
- **Enhanced AI Analytics**: Use advanced AI to gain deeper insights into user behavior, accessibility gaps, and recurring challenges to inform employer platform improvements.
- **Privacy and Security Enhancements**: Strengthen data protection through improved anonymization, encryption, and compliance with global privacy standards.
- **Global Scalability**: Adapt platform features, assessments, and recommendations for diverse languages, cultures, and regional employment markets worldwide.
- **Community and Feedback Systems**: Establish user feedback loops and community features to foster peer support and continuous platform improvement.

LITERATURE REVIEW

No.	Paper Title	Authors	Concept Summary
16	Autism spectrum disorder in the workplace: A position paper to support an inclusive and neurodivergent approach to work participation and engagement	Zhou, K., Alam, B., Fatemi, A. B., Howe, A., Chattu, V. K., & Nowrouzi Kia, B. (2023)	Presents approaches for fostering workplace inclusivity and engagement for autistic and neurodivergent employees.
17	Breaking barriers—The intersection of AI and assistive technology in autism care: A narrative review	Iannone, A., & Giansanti, D. (2023)	Reviews how AI and assistive tech can overcome barriers in autism care and employment support.
18	Understanding unique employability skill sets of autistic individuals: A systematic review	Griffiths, A. J., Torres, R., Delgado, R., Hurley-Hanson, A. E., Giannantonio, C. M., Walrod, W., Maupin, Z., & Brady, J. (2024)	Identifies employability skills unique to autistic individuals through a comprehensive review.
19	How technology advances research and practice in autism spectrum disorder: A narrative review on early detection, subtype stratification, and intervention	Shen, Z., & Yu, C.-L. (2025)	Details new tech-driven advancements in detecting and intervening with autism, including workplace applications.
20	Improving accessibility for work opportunities for adults with autism in an end-to-end supported workplace program: Protocol for a mixed methods cohort study	Guastella, A. J., Hankin, L., Stratton, E., Glozier, N., Pellicano, E., & Gibbs, V. (2025)	Describes a workplace program designed to improve employment accessibility for autistic adults through research-based support.

LITERATURE REVIEW

No.	Paper Title	Authors	Concept Summary
21	Employment-related assistive technology needs in autistic adults: A mixed-methods study	Zhou, K., Richard, C., Zhai, Y., Li, D., & Fry, H. (2025)	Explores the assistive technology needs and barriers faced by autistic adults seeking employment.
22	Disability technology	Wall, J. (2025)	Discusses innovations in accessibility technology and their impact on broadening workplace inclusion.
23	How assistive technology works for people with autism	Halpi, M. (2024)	Outlines practical applications of assistive technologies supporting autistic individuals in job settings.
24	Accommodation of anxiety in youth with autism spectrum disorder: Results from the TAASD study	Frank, H. E., Kagan, E. R., Storch, E. A., Wood, J. J., Kerns, C., Lewin, A. B., Small, B. J., & Kendall, P. C. (2020)	Studies how workplace accommodations can reduce anxiety for autistic youth, improving career readiness.
25	Autism and emotion recognition technologies in the workplace	Katirai, A. (2025)	Examines the use of emotion recognition technology to support autistic individuals in employment contexts.
26	Multimodal AI for risk stratification in autism spectrum disorder: integrating voice and screening tools	Bae, S., Hong, J., Ha, S., Moon, J., Yu,Lee, D., Yoo, H., Lee, Y., Son, J.-W., & Cheon, K.-A. (2025)	Integrates AI voice analysis and screening tools for early detection and support of autism in workplace settings.
27	Technology-aided interventions for employment skills in adults with autism spectrum disorder: A systematic review	Walsh, E., Holloway, J., McCoy, A., & Lydon, H. (2017)	Reviews how technology-based interventions positively impact employment skill development in autistic adults.

REFERENCES

[[1] Tomczak, M. T., & Ziemiański, P. (2023). Autistic employees' technology-based workplace accommodation preferences survey—Preliminary findings. *International Journal of Environmental Research and Public Health*, *20*(10), 5773. https://www.mdpi.com/1660-4601/20/10/5773

[2] Menezes, N. da S., da Rocha, T. Á., Camelo, L. S. S., & Mota, M. P. (2025). "I felt pressured to give 100% all the time": How are neurodivergent professionals being included in software development teams? In *Proceedings of the 2025 CHI Conference on Human Factors in Computing Systems* (Vol. 73, pp. 1–11). ACM. https://dl.acm.org/doi/10.1145/3613904.3642197

[3] Hall, K., Arora, P., Lowy, R., Kim, J. G., Mcdonald, K. M., & Mankoff, J. (2024). Designing for strengths: Opportunities to support neurodiversity in the workplace. In *Proceedings of the 2024 CHI Conference on Human Factors in Computing Systems* (Vol. 73, pp. 1–11). ACM. https://dl.acm.org/doi/10.1145/3613904.3642424

[4] Heggo, I., & Abdelbaki, N. (2018). Hybrid information filtering engine for personalized job recommender system. In *Advances in Intelligent Systems and Computing* (Vol. 746, pp. 553–563). Springer. https://link.springer.com/chapter/10.1007/978-3-319-74690-6_54

[5] Hong, S. R., Zampieri, M., Hand, B. N., Motti, V., Chung, D., & Uzuner, O. (2024). Collaborative design for job-seekers with autism: A conceptual framework for future research. *arXiv*. https://arxiv.org/abs/2405.06078

[6] Harris, C. G. (2018). Making better job hiring decisions using "human in the loop" techniques. In *Proceedings of the 2nd International Workshop on Augmenting Intelligence with Humans-in-the-Loop co-located with 17th International Semantic Web Conference (ISWC 2018)* (Vol. 2169, pp. 16–26). CEUR-WS. https://ceur-ws.org/Vol-2169/paper-03.pdf

[7] Ara, Z., Ganguly, A., Peppard, D., & Hong, S. R. (2024). Collaborative job seeking for people with autism: Challenges and design opportunities. In *Proceedings of the 2024 CHI Conference on Human Factors in Computing Systems* (Vol. 73, p. 73). ACM. https://dl.acm.org/doi/10.1145/3613904.3642197

[8] Saleh, J., et al. (2025). Neurodivergence and the workplace: A systematic review of the literature. *Journal of Vocational Behavior, 145*, 104666. https://journals.sagepub.com/doi/10.1177/10522263251337564

[9] Nair, V. S. (2025). Mapping the lacunae between neurodivergent individuals and work organizations. *Human Resource Management Review, 35*, 100857. https://www.sciencedirect.com/science/article/pii/S0001691825004469

[10] Johnson, S. P., et al. (2023). Understanding the experience of neurodivergent workers in image and text data annotation. *Data Science Journal*, *22*, 1–14. https://datascience.codata.org/articles/10.5334/dsj-2023-040

REFERENCES

[11] Memarian, B., et al. (2024). Human-in-the-loop in artificial intelligence in education: A review and entity-relationship analysis. *Computers and Education, 168*, 104201. https://www.sciencedirect.com/science/article/pii/S2949882124000136

[12] Kapp, E. E., Byers, S. M., Lawson, L. L., & Ougrin, C. F. (2023). Exploring neurodiversity in the workplace: Perspectives on inclusion, accommodations, and employment outcomes. *Journal of Vocational Rehabilitation, 58*, 73–89. https://journals.sagepub.com/doi/full/10.1177/10464964231213564

[13] van Rijswijk, J., Curșeu, P. L., & van Oortmerssen, L. A. (2024). *Cognitive and neurodiversity in groups: A systemic and integrative review. Small Group Research, 55*(1), 44–88. https://journals.sagepub.com/doi/pdf/10.1177/10464964231213564

[14] Davies, J., et al. (2024). *Career progression for autistic people: A scoping review. Autism in Adulthood, 6*(1), 3–14. https://pmc.ncbi.nlm.nih.gov/articles/PMC11494842/pdf/10.1177_13623613241236110.pdf

[15] Weber, C., Krieger, B., Häne, E., Yarker, J., & McDowall, A. (2024). *Physical workplace adjustments to support neurodivergent workers: A systematic review. Applied Psychology: An International Review, 73*(1), 154–192. https://iaap-journals.onlinelibrary.wiley.com/doi/epdf/10.1111/apps.12431

[16] Zhou, K., Alam, B., Fatemi, A. B., Howe, A., Chattu, V. K., & Nowrouzi Kia, B. (2023). *Autism spectrum disorder in the workplace: A position paper to support an inclusive and neurodivergent approach to work participation and engagement. Archives of Public Health, 81*(1), 199. https://link.springer.com/article/10.1007/s44202-024-00150-5

[17] Iannone, A., & Giansanti, D. (2023). *Breaking barriers—The intersection of AI and assistive technology in autism care: A narrative review. Journal of Personalized Medicine, 14*(1), 41. https://pmc.ncbi.nlm.nih.gov/articles/PMC10817661/

[18] Griffiths, A. J., Torres, R., Delgado, R., Hurley-Hanson, A. E., Giannantonio, C. M., Walrod, W., Maupin, Z., & Brady, J. (2024). *Understanding unique employability skill sets of autistic individuals: A systematic review. Journal of Employment Counseling, 61*(4), 320–350. https://onlinelibrary.wiley.com/doi/epdf/10.1002/joec.12223

[19] Shen, Z., & Yu, C.-L. (2025). *How technology advances research and practice in autism spectrum disorder: A narrative review on early detection, subtype stratification, and intervention. Brain Sciences, 15*(8), 890. https://pmc.ncbi.nlm.nih.gov/articles/PMC12384708/

[20] Guastella, A. J., Hankin, L., Stratton, E., Glozier, N., Pellicano, E., & Gibbs, V. (2025). *Improving accessibility for work opportunities for adults with autism in an end-to-end supported workplace program: Protocol for a mixed methods cohort study. JMIR Research Protocols, 14*, e60806. https://pmc.ncbi.nlm.nih.gov/articles/PMC12082053/

REFERENCES

[21] Zhou, K., Richard, C., Zhai, Y., Li, D., & Fry, H. (2025). *Employment-related assistive technology needs in autistic adults: A mixed-methods study. European Journal of Investigation in Health, Psychology and Education*, *15*(9), 170. https://www.mdpi.com/2254-9625/15/9/170

[22] Wall, J. (2025). *Disability technology. The Royal Society Report* (June 25, 2025). https://www.techuk.org/resource/inclusive-innovation-unlocking-the-potential-of-tech-for-accessibility.html

[23] Halpi, M. (2024). *How assistive technology works for people with autism. Recite Me.* https://reciteme.com/news/assistive-technology-for-autism/

[24] Frank, H. E., Kagan, E. R., Storch, E. A., Wood, J. J., Kerns, C., Lewin, A. B., Small, B. J., & Kendall, P. C. (2020). *Accommodation of anxiety in youth with autism spectrum disorder: Results from the TAASD study. Journal of Clinical Child & Adolescent Psychology*, *51*(2), 219–229. https://pmc.ncbi.nlm.nih.gov/articles/PMC7722072/

[25] Katirai, A. (2025). *Autism and emotion recognition technologies in the workplace. Autism*, *29*(3), 554–565. https://pubmed.ncbi.nlm.nih.gov/39282995/

[26] Bae, S., Hong, J., Ha, S., Moon, J., Yu,Lee, D., Yoo, H., Lee, Y., Son, J.-W., & Cheon, K.-A. (2025). *Multimodal AI for risk stratification in autism spectrum disorder: integrating voice and screening tools. npj Digital Medicine*, *8*, 538. https://www.nature.com/articles/s41746-025-01914-6

[27] Walsh, E., Holloway, J., McCoy, A., & Lydon, H. (2017). Technology-aided interventions for employment skills in adults with autism spectrum disorder: A systematic review. *Review Journal of Autism and Developmental Disorders*, 4, 12–25. https://link.springer.com/article/10.1007/s40489-016-0093-x

THANK YOU