

Bailey Reid Gwyn

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Professional Summary

Interdisciplinary researcher, systems developer, and disability advocate working at the intersection of translational neuroscience, AI systems, functional genomics, and ethics. Focused on building clinically useful AI infrastructure, accessible biomedical communication tools, and independent research frameworks bridging technology, medicine, and public advocacy.

Current research focuses on AI-assisted translational neuroscience, memory systems, and clinical knowledge accessibility.

EMPLOYMENT HISTORY

Creator & Lead Developer — Audia AI

2023 - Present

- Designed and deployed a local-first self-training AI assistant with structured memory, web search, and multi-platform interfaces.
- Built QLoRA fine-tuning pipelines and .gguf export workflows for local LLM deployment.
- Implemented background retraining, persistent memory logging, system prompt architecture, and structured JSON handling.
- Integrated AI publishing workflows with WordPress and independent research infrastructure.

Independent Researcher & Disability Advocate

2019 - Present

- Conduct independent interdisciplinary research spanning neuroscience, AI ethics, disability studies, and systems medicine.
- Developed documentation frameworks and advocacy timelines addressing educational and medical accessibility issues.
- Produced accessible scientific communications including infographics, reports, and research publications.

Freelance Academic & Technical Content Developer

2022 - Present

- Self-published 100+ academic and technical papers with structured citation automation (JSON-LD, BibTeX, Markdown).
- Designed clinical education materials on chronic pain, medical cannabis, patient safety, and neurobiological topics.
- Built web-based research dissemination systems integrating SEO, accessibility, and structured data.

APPOINTMENTS

Founder & Systems Architect — Audia Systems

2023 - Present

- Developing modular AI infrastructure supporting personal knowledge systems, translational research, and clinical communication.

Independent Study Academy / Independent Research Framework

2020 – Present

- Structured independent higher-education pathway integrating neuroscience, genomics, AI systems, and translational medicine.

EDUCATION

Self-Directed Doctoral Trajectory — Translational Neuroscience / Systems Medicine

Ongoing

Focus:

- Translational / Behavioral neuroscience
- Functional genomics & systems medicine
- AI-assisted biomedical research
- Ethological anthropology

Associate of Applied Science — AI Software Engineering

Maestro Academy — In Progress

Focus:

- AI systems engineering
- Cybersecurity fundamentals
- Linux systems development
- Applied software engineering

Graduate Coursework — Neuroscience / Cybersecurity

University of Colorado Boulder (Online)

Focus:

- Software engineering principles
- Cybersecurity fundamentals
- Systems development
- Applied computing for research environments
- Pharmacology
- Medical Science / Neuroscience

Independent Study Academy High School Diploma

Completed 2020

Focus:

Independent academic framework emphasizing interdisciplinary research, human sciences, and technology integration.

- Biology
- Music Theory / Sound (*How Sound Waves Affect Chemical Reactions*)
- Physical Medicine

PATENTS & PUBLICATIONS

Author of 100+ interdisciplinary publications on AI systems, translational neuroscience, disability advocacy, and biomedical communication.

<https://baileygwyn.xyz/publications>

Biomedical communication infographics translating complex clinical topics into accessible formats.

<https://baileygwyn.xyz/posts>

AI infrastructure documentation and knowledge-system publications.

<https://Audia.Systems>

WORKSHOPS

Development of AI-driven clinical communication tools.

<https://ClinicianCompanion.tools>

Independent neuroscience research initiatives, exploratory studies, and applied tool development.

<https://HSAM.net>

2018 research project: *How Sound Waves Affect Chemical Reactions.*

<https://baileygwyn.xyz/music>

RESEARCH & LEADERSHIP HIGHLIGHTS

Scholarly Contributions & Impact

- Independent interdisciplinary research integrating translational neuroscience and AI systems.
- Public dissemination of accessible biomedical materials for patient and clinician use.
- Development of independent academic frameworks for systems-based research training.
- Ongoing work in AI-assisted knowledge systems for clinical communication.
- Developer of independent AI research infrastructure supporting knowledge graphs, local LLM deployment, and biomedical publishing pipelines.

Advocacy & Systems Reform Initiative

- Transformed lived institutional barriers into structured research and documentation frameworks.
- Developed timelines and case-building systems for disability and educational accessibility reform.
- Engaged in policy-aligned advocacy emphasizing transparency, patient-centered care, and systemic accountability.

CERTIFICATIONS, TRAINING & PROFESSIONAL DEVELOPMENT

Clinical / Health Sciences

- ECG Rhythms & Interpretation (2025)
- Medical Imaging & Radiology (2025)
- Introduction to the Human Body (2025)
- Medical Terminology Diploma (2025)
- Patient Safety & Duty of Care (2026)
- Elderly Care & Disability Support (2025)
- History of Medical Cannabis (2025)
- Cannabis, Chronic Pain & Related Disorders (2025)
- Healthy Aging & Cannabis Research (2025)

Legal, Safety & Professional Certifications

- AI & Law — Lund University / Coursera (2026)
- USPTO Basic Patent Training (2025)
- Paralegal Certification (2025)
- American Red Cross Lifeguarding / First Aid / CPR / AED (2018)
- American Red Cross Water Safety Certification (2025)

Additional Professional Development

- Diploma in Psychology (2025)
- Diploma in Biology (2025)
- Diploma in Veterinary Medicine (2025)
- Social Inclusion Officer Training
- Professional Dog Training Certification (2023)

Complete accreditation record available at: <https://baileygwyn.xyz/accreditations>

SKILLS

Technical

- AI/LLM development (QLoRA, Ollama, local inference)
- Python, FastAPI, Linux systems engineering
- Knowledge graph and memory architecture design
- WordPress development and SEO integration
- Structured data publishing (JSON-LD, BibTeX, Markdown)

Research & Clinical Translation

- Translational neuroscience research
- Systems medicine frameworks
- Scientific writing and publication
- Clinical infographic design
- Data visualization and knowledge synthesis

Advocacy & Communication

- Disability rights documentation
- Educational policy advocacy
- Public science communication
- Interdisciplinary systems thinking