Zachary James

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WORK EXPERIENCE

Brick Bridge Consulting

Louisville, KY

Junior / Staff Citrix Developer

December 2022 – January 2024

• Developed and maintained SaaS applications using various languages, automated workflows with Zapier and PWA, and built web portals for clients, including a company serving Morgan & Morgan, a medical staffing firm, and internal tools for an influencer management group

Agape Bloom (www.agapebloom.com/)

Baton Rouge, LA

Technical Consultant

December 2022 - Present

• Launched a Louisiana-based development and application consultancy that helps companies leverage and adapt with technology, building new or leveraging existing LLM-driven tools (models & software) for both internal and external products

LSU Electrical Engineering & Computer Science

Baton Rouge, LA

Undergraduate Teaching Assistant

December 2022 – *May* 2024

• Supported over 100 students in CSC 1350 and 1351 Java programming labs, grading tests and homework, proctoring exams, and providing tutoring on core programming and data structures concepts

LSU Mathematics Department

Baton Rouge, LA

Machine Learning (ML) Undergraduate Researcher

May 2024 - Present

• We developed and applied ML models, including traditional regression methods and neural networks, as well as a novel p-Laplacian regression approach, to predict health metrics like appendicular lean mass, body fat percentage, and bone density from biomarker data, in collaboration with Pennington Biomedical Research, resulting in a cost-effective alternative to DEXA scanners

EDUCATION

Louisiana State University

Baton Rouge, LA

B.S., Computer Science (2nd Discipline: Psychology)

May 2026

B.S., Mathematics (Concentration: Data Science)

- GPA: 3.9; Honors College; Dean's List: 2022-4; working on PPL; https
- Relevant Coursework: Calc I-III, DSA, Dif. Eq. & Linear Alg., Cognition, ABA, Probability, Numerical Methods, Discrete Structures, Competitive Programming, OO Design, I-O Psych.

CURRENT PROJECTS

- *Building ML library from scratch* (C++ & Python versions) to understand math and algorithms (https://github.com/zach007james/); Studying: Bishop's *Pattern Recognition & ML*, Cormen's *Algorithms*, Ilya's Reading List to John Carmack, and Stanford Online ML & RL courses
- *Paper / Book on AI Policy in the Military Context:* After taking a course on AI Policy with Sen. Cassidy and Dr. Heidelberg, I am expanding my idea of developing an Lockian 'outlet of autonomy' for every citizen, fighting paternalism (elitism), and considering this regulation with adversaries like China who don't respect basic human freedoms leading me to study Clausewitz, Tzu, Machiavelli, Simon, Locke, Marx, Smith, Buddhist Philosophy, Nietzsche, Plato, Aristotle, and Watt's *Logic* to develop, organize, and communicate my ideas in a cohesive manner
- Paper / Book exploring Problematic Social Media Use (and treatment landscape)
- 'Archive' Blog: I explore ideas, summarize books, and develop tutorials for future videos & curricula