

FOSTER KUSZ

Graduate Student | Central Michigan University

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EDUCATION

2022 - 2024 **Master of Science in Physics**, Central Michigan University
2017 - 2021 **Bachelor of Arts in Physics**, Albion College
Bachelor of Arts in Mathematics, Albion College
Psychology Minor, Albion College

EXPERIENCE

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| Present
July 2025 | Database Application Specialist, JACKSON COLLEGE, Jackson, MI <ul style="list-style-type: none">> Execute complex SQL queries to extract and manipulate data for reporting and SFTP data pulls to vendor systems.> Manage database performance and integrity through routine maintenance and optimization strategies.> Provide application support by troubleshooting issues, delivering solutions, and contacting vendors to ensure smooth operations of the college and courses. |
| July 2025
February 2024 | AI Training QA, OUTLIER, Remote <p>Evaluated and assessed AI response quality for graduate-level physics and mathematics content with emphasis on accuracy and comprehensiveness. Additionally, reviewed other contributor's evaluations.</p> <ul style="list-style-type: none">> Reviewed dozens of contributed prompts per day while providing highly detailed feedback on their specificity, level of detail, cohesiveness, and accuracy. |
| May 2024
March 2023 | Research Assistant, CENTRAL MICHIGAN UNIVERSITY, Mount Pleasant, MI <p>Analyzed large-scale ion beam experimental data using ROOT library to optimize timing electronics modules for future experiments.</p> <ul style="list-style-type: none">> Implemented statistical analysis workflows in Linux ROOT environment for data manipulation and visualization.> Wrote modular C++ code to streamline repeat analyses.> Organized findings in PowerPoint to help present the results. |
| May 2024
August 2022 | Graduate Assistant, CENTRAL MICHIGAN UNIVERSITY, Mount Pleasant, MI <p>Instructed physics laboratory sections for 70+ undergraduate students per semester, providing comprehensive instruction and assessment</p> <ul style="list-style-type: none">> Instructed 3 weekly introductory physics sections with around 70 students per semester.> Held office hours for students to attend and ask questions.> Graded weekly lab reports, midterm exams, and provided detailed feedback to students. |
| May 2024
August 2023 | E-Sports Manager, CENTRAL MICHIGAN UNIVERSITY, Mount Pleasant, MI <p>Led and developed two competitive Super Smash Bros Ultimate teams totaling 11 players, implementing structured practice regimens and performance analysis.</p> <ul style="list-style-type: none">> Organized practice times and match times for both teams.> Ensured all forums and registrations were completed in due time.> Coached players by reviewing their performance after matches, providing feedback, and locating self-improvement resources.> Provided weekly reports to the department about player progress, equipment issues, team needs, and roadblocks. |
| July 2022
July 2021 | Associate Actuarial Analyst, AUTO OWNERS INSURANCE, Lansing, MI <p>Worked on 3-4 states at a time for the company's personal auto team. Performed annual reviews of the insurance rates in these states and brought proposals for rate adjustment to upper management for approval.</p> <ul style="list-style-type: none">> Worked with large data sets and statistical models such as Generalized Linear Model (GLM).> Communicated actuarial concepts and practices to other departments several times per week.> Maintained excel workbooks and visual basic code while looking for ways to increase efficiency. |

Summer 2020

Software Developer, AUTO OWNERS INSURANCE, Lansing MI

Completed COBOL and CICS training, maintained old code, and fixed production bugs.

- > Self-taught on an internal software using documentation to automate a 3000+ program recompile project, saving the company time and resources.

 SKILLS

Programming Languages	Python, C++, C, COBOL, VBA, R, MATLAB Java, SQL
Other Languages	Italian (A1)
Productivity	LaTeX, Excel, Server Maintenance (Linux),
Hobbies	3D Modeling, 3D Printing, Personal Finance,

 CLUBS AND ACTIVITIES

Albion Investment Club :	Collaborated with club members to learn about personal finance and investment strategies. We took trips to Forbes 30 under 30 and had a yearly trip to Chicago to meet with several Albion alumni in the finance sector. We also managed an investment portfolio for the college.
Albion Engineering Club :	We ran semester projects that taught about 3D printing, electronics, and coding. Unanimously elected club president in 2020 by our 13 club members.
Albion Math Team :	Represented Albion College's Math team by competing in personal and team competitions.
Central E-sports Team :	Play for Central Michigan's Super Smash Brothers Ultimate (SSBU) team and compete in the NACE Starleague.
Central Finance Club :	Learn the fundamentals of the stock market, investing, derivatives, and other financial instruments. Propose positions and manage a portfolio for the college.
Cue Sports Club :	I registered a cue sports club to bring people together that enjoy playing pool. I teach beginners the fundamentals of playing pool, and organize our meetings.
SEDS Rocketry Club :	Worked on creating a 3D printed model rocket; involving engineering, programming, and CAD software

 RELEVANT COURSEWORK

Quantum Mechanics 1 Book : Sakurai	Re-introduced quantum mechanics building it up from pure quantum mechanics principles. Focused on the basics of quantum mechanics : wave functions and operators in both Bra-ket notation and matrix notation.
Quantum Mechanics 2 Book : Sakurai	Refined the understanding of quantum mechanics. The focus was on formulating more advanced problems beyond simple square wells and harmonic oscillators. The end of the course moved towards application-focused problems, such as calculating electron densities in atomic orbitals.
Advanced Mechanics Book : Goldstein	Introduced Lagrangian mechanics and Hamiltonian mechanics to solve problems that Newtonian mechanics struggles with. Problems revolved around applying tactics such as Lagrange multipliers and constraint conditions to a variety of common electromagnetic and kinematic systems.
Electricity and Magnetism Book : Zangwill	This course focuses on solving Maxwell's equations under different conditions including variations of levels of approximation, boundary conditions, and sources.
Optimization Theory Book : Griva, Nash, Sofer	Main concepts revolve around linear and non-linear programming. Several algorithms for both constrained and unconstrained optimization problems were studied. Some examples include Newton's method, gradient descent, and Lagrange multipliers.
Artificial Intelligence Book : Russell, Norvig	Content spans a brief history of AI, search techniques, and applications of rudimentary and simple AI machines and models. It parlays into knowledge representation, various learning techniques, and neural nets. Finally, we discuss more application-oriented topics like computer vision, robotics, and LLMs. The class concluded with a self-driven research project and presentation on an AI topic of our choice.