**Zachariah Thomas**(610) 504-6240 | zft5126@psu.edu | www.linkedin.com/in/zachariah-thomas-b1677023a | https://github.com/thomasz751

**EDUCATION**

**The Pennsylvania State University University Park, PA**  
*Eberly College of Science January 2025 – Anticipated Graduation 2027*  
Bachelor of Science in Statistics, concentration Actuarial Option GPA: 3.88/4.00 Dean’s List (1/1) semesters

**Lycoming College Williamsport, PA**  
*College of Business August 2023-December 2024*  
Bachelor of Science in Actuarial Science GPA: 3.92/4.00 Dean’s List (3/3) semesters

**Society of Actuaries**

*Financial Mathematics Exam (Sitting) February 2026*

**EXPERIENCE**

**Lehigh University Bethlehem, PA**  
*Research Assistant May 2025 – August 2025*

* Led development of machine learning models using XGBoost and Scikit-learn to predict end-of-life outcomes from demographic and survey data collected in 2024.
* Conducted quantitative analysis to evaluate model performance, identify key predictive factors, and inform future predictive strategies.
* Contributed to a scientific publication, including data analysis, model interpretation, and manuscript preparation, with Professors Thomas McAndrew, Laura Dennely, and Dena Davis
* Applied statistical and mathematical techniques to support rigorous research methodology and ensure reproducibility of results.

**Lycoming College Williamsport, PA**  
*Math Tutor August 2024 - January 2025*

* Tutored students with mathematical topics ranging from Algebra to Calculus and Statistics
* Applied positive reinforcement and mentoring techniques to build student confidence and engagement in mathematical problem-solving.
* Collaborated with the Math Center team to optimize tutoring resources and support academic success.

**Lycoming College Williamsport, PA**  
*Varsity Soccer August 2023-December 2024*

* Served as a key defensive leader, directing on-field communication and coordinating team strategy as center defender.
* Represented the team on the Student-Athlete Advisory Committee, contributing to program development and student-athlete advocacy.
* Facilitated team practices by providing feedback and motivational support, enhancing performance and cohesion.

**PROJECTS**

**Pennsylvania Bird Species Classification Model State College, PA**  
*Machine Learning Project August 2025-Present*

* Designed and implemented a web-scraping pipeline to collect and preprocess thousands of images for machine learning
* Engineered features from image datasets and applied a convolutional neural network for image classification, achieving accurate differentiation across 447 species.

**CERTIFICATIONS, SKILLS, EXTRACURRICULARS**

**Certifications:** Machine Learning Specialization by DeepLearning.AI

**Skills:** Python, Java, R, Regression, Microsoft Excel, Deep Learning

**Extracurriculars:** Penn State Actuarial Science Club, Nittany AI Alliance