

Joey Paul E. Haynes

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Education	<p>University of Texas at Austin, Austin, TX Master of Science (M.S.) in Computer Science Coursework: Planning, Search, and Reasoning Under Uncertainty Cumulative GPA: 4.00/4.00</p> <p>Southern New Hampshire University, Manchester, NH Bachelor of Science (B.S.) with Honors Major in Computer Science, Minor in Applied Mathematics Cumulative GPA: 4.00/4.00</p>	<p>August 2024 - Present Graduation: May 2026</p> <p>January 2021 - June 2024 Graduation: June 2024</p>
Experience	<p>Systems Realization Laboratory at OU, Norman, OK Research Intern in Data Science University of Oklahoma</p> <ul style="list-style-type: none">• Collaborated in a team of 5+ researchers as lead author for the ALAN project, investigating the impact of artificial lights at night (ALAN) on bird strike occurrences• Conducted exploratory data analysis (EDA) using GIS tools, integrating data including the FAA wildlife strike database, BirdCast migration forecasts, and light pollution rasters• Developed a spatiotemporal predictive model using decision tree regression with GIS data, achieving an R-squared value of 0.78• Applied k-fold cross-validation and hyperparameter tuning to optimize model performance, achieving an average absolute error of 0.95 strikes• Winner of the NSF/ASME student design essay contest for an essay on adaptive manufacturing systems using predictive modeling and cyber-physical-social systems (CPSS)• Authored 2 first-author publications (IDETC, JCISE) and presented 4 technical presentations <p>Walmart, Yukon, OK Associate</p> <ul style="list-style-type: none">• Balanced a customer-facing role throughout undergraduate studies, developing strong time management and leadership skills• Trained and mentored over 20 employees, enhancing team efficiency and communication• Managed merchandise presentation and facility maintenance, contributing to a 5.5% YoY sales increase in a \$100M/year facility	<p>August 2023 - Present</p> <p>June 2020 - Present</p>
Projects	<p>Design Messaging Platform — jpthefish.com</p> <ul style="list-style-type: none">• Deployed a full-stack web application with daily traffic using React.js, Firebase, and SQL• Created a chatroom with sign-in authentication, back-end security logic, and word filtering• Designed and implemented a responsive UX design with careful attention to visual accessibility <p>Grazioso Salvare Analytics Dashboard with Dr. Sherri Maciosek</p> <ul style="list-style-type: none">• Developed a full-stack analytics dashboard using Python, MongoDB, and Dash framework• Implemented interactive data visualization components, including tables, charts, and geolocation maps, enabling stakeholders to filter and analyze animal shelter data by relevant criteria	<p>December 2022 - Present</p> <p>February 2023</p>
Technical Skills	<p>Languages: Python, SQL, R, Java, C/C++, MATLAB, JavaScript</p> <p>Data technology: PostgreSQL, MySQL, MongoDB, Firebase/Firestore</p> <p>Tools and frameworks: Git, AWS, Docker, OpenGL, React, Tableau</p>	
Languages and Other Skills	<p>Intermediate Spanish (B1) and French (B2) Language Fluency</p> <p>Classical and Jazz Piano</p>	
Selected Publications	<p>J. P. Haynes, M. J. Bhalerao, W. T. Honeycutt, J. K. Allen, and F. Mistree. <i>Predictive Modeling for Public Policy Design: The Impact of Artificial Lights at Night (ALAN) on Bird Strikes</i>. ASME Computers and Information in Engineering Conference, DETC24-143780, Washington, D.C., August 2024</p>	