

# Joey Paul Eli Haynes

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Education	<p><b>University of Texas at Austin</b>, 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><b>Southern New Hampshire University</b>, 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: December 2026</p> <p>January 2021 - June 2024 Graduation: June 2024</p>
Experience	<p><b>Systems Realization Laboratory at OU</b>, Norman, OK Data Science Research Intern   University of Oklahoma</p> <ul style="list-style-type: none"><li>• 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</li><li>• Conducted exploratory data analysis (EDA) using GIS tools, integrating data including the FAA wildlife strike database, BirdCast migration forecasts, and light pollution rasters</li><li>• Developed a spatiotemporal predictive model using random forest regression with GIS data, achieving an R-squared value of 0.80</li><li>• Applied k-fold cross-validation and hyperparameter tuning to optimize model performance, achieving an average absolute error of 0.87 strikes</li><li>• Winner of the NSF/ASME student design essay contest for work on adaptive manufacturing systems using predictive modeling and cyber-physical-social systems (CPSS)</li><li>• Authored 2 first-author publications and presented findings at 4 technical sessions/conferences</li></ul> <p><b>Walmart</b>, Yukon, OK Sales Associate</p> <ul style="list-style-type: none"><li>• Balanced a customer-facing role throughout undergraduate studies, developing strong time management and leadership skills</li><li>• Trained and mentored over 20 employees, enhancing team efficiency and communication</li><li>• Managed merchandise presentation and facility maintenance, contributing to a 5.5% YoY sales increase in a \$100M/year facility</li></ul>	<p>August 2023 - Present</p> <p>June 2020 - Present</p>
Projects	<p><b>Portfolio Website — jpthefish.com</b></p> <ul style="list-style-type: none"><li>• Deployed a full-stack web application with daily traffic using React.js, Firebase, and SQL</li><li>• Created a chatroom with sign-in authentication, back-end security logic, and word filtering</li><li>• Designed and implemented a responsive UX design with careful attention to visual accessibility</li></ul> <p><b>Grazioso Salvare Analytics Dashboard</b> with Dr. Sherri Maciosek</p> <ul style="list-style-type: none"><li>• Developed a full-stack analytics dashboard using Python, MongoDB, and Dash framework</li><li>• Implemented interactive data visualization components, including tables, charts, and geolocation maps, enabling stakeholders to filter and analyze animal shelter data by relevant criteria</li></ul>	<p>December 2022 - Present</p> <p>February 2023</p>
Technical Skills	<p>Languages: Python, SQL, Java, C/C++, MATLAB, JavaScript Data technology: PostgreSQL, MySQL, MongoDB, Firebase/Firestore Tools and frameworks: Git, AWS, Docker, OpenGL, React, Tableau</p>	
Languages and Other Skills	<p>Intermediate Spanish (B1) and French (B2) Language Fluency Classical and Jazz Piano</p>	
Selected Publications (1 of 3)	<p><b>J. P. Haynes</b>, 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 International Design Engineering Technical Conferences &amp; Computers and Information in Engineering Conference, DETC2024-143780, Washington, D.C., August 2024</p>	