

MARK ARMSTRONG

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EDUCATION

The University of Texas at Dallas <i>Bachelor of Science in Computer Science</i>	Richardson, TX <i>Expected Graduation: August 2026</i>
<ul style="list-style-type: none">Awarded the highest-level transfer scholarship of \$5,000 per year for academic excellenceRelevant Courses: Data Structures and Algorithms, Machine Learning, Database System, Software Engineering, Operating Systems, Automata Theory, Computer Vision, Computer Graphics, Computer Networks	

EXPERIENCE

Software Engineer Intern <i>Companions Journeying Together</i>	May 2025 – December 2025 <i>Remote</i>
<ul style="list-style-type: none">Resolved 10+ GitHub tickets by debugging PHP (CodeIgniter 4) logic and monitoring real-time logs via Sentry, reducing system-wide runtime errors and improving application uptime by 15%Optimized MySQL database interactions for complex data modules, achieving a 30% increase in query efficiency for high-volume records involving incarcerated persons and caregiversModernized development workflows by upgrading the core environment to PHP 8.4 within Docker, ensuring container stability and enabling advanced language features for system-wide performance gainsEnhanced data integrity by 25% through the implementation of SQL validation scripts, eliminating record duplication and ensuring accurate delivery of critical program metadataRefactored full-stack components using HTML, CSS, and JavaScript to fix UI regressions and noticeably decrease page load times within AWS-hosted environments	

PROJECTS

BiteScout <i>JavaScript, HTML, CSS</i>	August 2025 – December 2025
<ul style="list-style-type: none">Engineered a mobile-first restaurant discovery engine in JavaScript using real-time filtering for personalized resultsBuilt a responsive frontend with HTML and CSS to simulate native app interactivity and seamless UI state updates	
LibraryIQ <i>PHP, MySQL, JavaScript</i>	May 2025 – October 2025
<ul style="list-style-type: none">Developed a full-stack web application using PHP with CodeIgniter (MVC framework), implementing complete CRUD functionality for managing library booksIntegrated the Google Books RESTful API for ISBN-based metadata retrieval, reducing manual data entry by 90%Implemented advanced features including fuzzy matching duplicate prevention, optimized database queries, and responsive UI design for scalable performance and usability	
Solubility Prediction System <i>Python, Machine Learning</i>	December 2024
<ul style="list-style-type: none">Built a molecular solubility prediction system comparing Linear Regression and Random Forest models using a dataset of 1,144 compounds with four physicochemical propertiesDeveloped a machine learning pipeline in Python utilizing pandas, scikit-learn, and matplotlib to analyze model performance and visualize comparative prediction accuracy	
Watermark Application <i>Python</i>	February 2024
<ul style="list-style-type: none">Developed a Python script using the FileTools template to automate the process of adding custom text or image watermarks to multiple pictures, with adjustable positioning and transparency	

TECHNICAL SKILLS

Languages: C/C++, Java, Python, PHP, MySQL, JavaScript, HTML, CSS
Developer Tools: VS Code, CLion, IntelliJ, PyCharm, Git, GitHub, Docker, AWS, Claude, Cursor
Certifications: Microsoft Office Expert Certification in Excel, PowerPoint, Word, and Outlook