

Dol Raj Bashyal

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EDUCATION

The University of Southern Mississippi	Expected May 2027
BS Computer Science Mathematics & Economic Data Analysis Minor	
GPA: 4.0 /4.0 cumulative	
President's List Term Honor	Aug 2023- Present

EXPERIENCE

Database Developer Intern Optimal Answers LLC	Feb 2026 - May 2026 <i>Hattiesburg, MS</i>
<ul style="list-style-type: none">Working on Smartphone presentation for Optimal Grocery Shopping within the Optimal decision-optimization platform.Gaining hands-on experience with full-stack application components including databases, APIs, cloud hosting (Azure), and optimization models.	

PROJECTS

Optimization of Blockchain-Based Identity & Access Control (BC-IAS) Research Project	Fall 2025
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- Re-architected a blockchain-based cloud access control system by removing HECC and runtime on-chain verification, enabling fully off-chain authentication
- Implemented Ed25519, X25519, HKDF-SHA256, and AES-256-GCM + HMAC-SHA256 to preserve mutual authentication, forward secrecy, and replay resistance
- Achieved ~2.8Mx throughput improvement and 200x latency reduction while reducing CPU utilization by ~40% on Apple M4 hardware

Crypto-C Web3 Security Chrome Extension FastAPI, Python, Chrome Extensions, REST APIs	Fall 2025
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- Built a real-time Web3 security extension for URL phishing detection, transaction simulation, and risk scoring, backed by a FastAPI service
- Implemented live API integration, warning overlays, approval management UI, and graceful fallback to mock mode when backend is unavailable

Research Paper Parser .NET MAUI, C#, XAML, SQLite, Google Gemini API	Spring 2025
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- Developed a cross-platform app using .NET MAUI to simplify research by generating concise summaries of academic papers.
- Enabled PDF/DOC uploads and integrated Google Gemini API for text extraction and summarization with clean in-app display

HONORS

Academic Excellence Full Tuition Scholarship	Aug 2023- Present
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