

# Dol Raj Bashyal

bashyal.dolraj30@gmail.com | 601-913-4879 | dols30.vercel.app | linkedin.com/in/drj30

## 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** Feb 2026 - May 2026  
Optimal Answers LLC *Hattiesburg, MS*

- 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)** Fall 2025  
Research Project

- 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 ~2.8M× throughput improvement and 200× 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

- 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

- 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