BISHWASH KHADKA

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McNEESE STATE UNIVERSITY

BACHELOR OF SCIENCE IN COMPUTER SCIENCE

- COURSEWORK: Software Engineering, DevOps, Adv. Data Structure and Algorithms, AI/ML, OOP, Cyber Defense, Web Development, Computer Organization & Architecture, Database Management, Structure Programming Language
- ACHIEVEMENTS: McHACKS 2.0 (1st place), Outstanding Junior Award in CS, ICPC LSU (3rd Place), TruHacks 2024 (3rd Place), McHacks 1.0 2024 (Top 5), President's Honors List (2022-Present), McNeese Sprint Court 2023, 2024, 2025

TECHNICAL SKILLS

- Programming Language: Python, Java, Kotlin, C++, JavaScript (ES6), Golang, Prolog, GDScript
- Tools: React.js, Android Studio, Flask, Firebase, Jinja2, Tailwind CSS, Chrome Extensions, Git, GitHub, Jenkins, Linux, Godot, WAMP Server, Visual Studio Code, Storybook, Jest, CI/CD pipelines, Agile, Figma
- Technologies: OpenAI GPT APIs, DOM Manipulation, REST APIs, Async Programming, Persistent Local Storage, Session Management, PDF Export, Unit & Integration Testing
- Certifications: <u>TestOut Linux Pro</u>, <u>Foundations of Project Management</u>, <u>Crash Course on Python</u>, <u>Gaming Market Analytics</u>, <u>CodePath Andriod Development</u>, <u>Advanced Technical Interview Prep</u>

EXPERIENCE

SWE FELLOW Headstarter AI

2024 – August 2024

- Designed a web scraper to extract RateMyProfessor data and upsert into Pinecone; integrated with a custom RAG pipeline using LangChain and OpenAI to generate real-time, query-relevant responses.
- Developed a SaaS flashcard generator using Llama 3.1 via the Groq API, integrating a Stripe paywall and pricing plans.
- Created a support agent using a **RAG pipeline** with **OpenAI** and **Pinecone**, tailored to company knowledge.

IT INTERN

Lavner Education, Rice University

- Quickly adapted to weekly curriculum changes, delivering hands-on instruction in **Python**, **AI**, **game development**, **cybersecurity**, and video production, while providing IT support in a high-pressure, fast-moving environment.
- Deployed and maintained **100**+ devices, configuring operating systems, imaging systems, and troubleshooting hardware/software issues using remote desktop tools to ensure **99%** uptime for camp operations.
- Debugged and optimized student projects in **Python**, **Java**, and **Scratch** using **Visual Studio Code** and **Eclipse**; mentored **40+** students, and integrated robotics (**Arduino**) and AI learning modules into hands-on STEM curriculum.
- Configured classroom AV and recording equipment using **OBS Studio**, enhancing educational content delivery, and proactively communicated IT challenges to leadership, identifying and resolving system inefficiencies.

TECHNICAL PEER MENTOR

CodePath

- Mentored 3+ CodePath students through 1:1 virtual meetings and biweekly check-ins, guiding them through technical challenges in Android (Kotlin, Android Studio, UI architecture) and web development (JavaScript, React.js, REST APIs).
- Participated in 3 training and pilot mentor calls, shaping best practices for a program supporting **100+** students.

STUDENT LIFE COALITION COORDINATOR

Student Life Coalition, McNeese State University

- Handled over **4000** students over all the events, engaging them and increasing student involvement at the university utilizing effective planning methods.
- Organized major events by leading around **30+** events as a part of SLC with communication skills and teamwork.

LAUNCH LEAD AMBASSADOR

Fizz Social

- Drove the university launch event for Fizz Social, increasing student adoption of the app by optimizing event execution.
- Increased daily active users by **2,000+** by leading a team of **46** ambassadors through user acquisition campaigns.

PROJECTS

POKESTRAIL (MCHACKS Hackathon) (1st Place) – Flutter | Firebase | Firestore | Firebase Auth

- Developed "PokesTrail," a mobile platform using **Flutter** and **Firebase**, connecting McNeese students with the local community for mentorship, resource-sharing, and event collaboration, winning 1st place among **50+** teams.
- Developed a Wellness Website in under 9 hours, leveraging Git and Google Links for seamless collaboration.
- <u>GUFF AI (AI Powered Chat Assistant)</u> Chrome Extension APIs | React.js | GPT-40 | Tailwind CSS | JavaScript
 - Developed Guff AI, a Chrome extension leveraging Chrome Extension APIs, React.js, JS, and Tailwind CSS, integrating OpenAI GPT-40 API for real-time, context-aware chat assistance and smart content extraction across platforms.

June 2023 - August 2023

May 2025 – August 2025

Sep 2023 - May 2025

Dec 2023 - Mar 2024

May 2025 GPA 3.94 • Engineered a dynamic, responsive UI with customizable chat bubbles and persistent local storage, implementing advanced **DOM** parsing, asynchronous **RESTful API** calls, **error handling**, and unit/integration testing using **Jest**.

WAY OF THE FROG (2D Metroid Vania Game) – Godot | GDScript | Aseprite | CI/CD

- Engineered core gameplay mechanics in **Godot**, using **GDScript**, optimizing player mechanics for smooth transversal.
- Created interconnected levels with utility-gated progression, enhancing exploration and player engagement.
- Scripted 6+ NPC AI and boss mechanics for dynamic challenges, integrating custom pixel art assets into Aseprite.
- Leveraged Agile methodology to boost player satisfaction from **70%** to **90%** by integrating continuous user feedback (**CI/CD**), conducting 6 iterative playtesting cycles, and refining core gameplay mechanics based on actionable insights.

McNEESE BOOKHUB – JavaScript | PHP | WAMP | SQL | HTML/CSS

- Led a team of 4 to develop an online bookstore for McNeese students, improving accessibility and usability.
- Built a responsive frontend with HTML, CSS and JavaScript and secure REST APIs using WAMP Server to handle PHP.
- Designed and deployed a scalable **SQL** database, optimizing query performance by **30%** for product, and order data.
- Utilized the Waterfall model to reduce defects by 30% through thorough requirements gathering, detailed design, and

rigorous testing, ensuring **100%** feature completeness at launch; **OAuth**-based authentication for secure user sessions. <u>INTRO TO ANDROID DEVELOPMENT</u> – Kotlin | Android Studio | RecyclerView | AsyncHttp | SharedPreferences

- Completed an 8-week, 40+ hour Android development course focused on Kotlin, Android Studio, and UI architecture.
- Built **3+** Android apps, including a multi-screen capstone project using RecyclerView, ViewBinding, SharedPreferences, and live **API** integration via **AsyncHttpLibrary**.

THREADHUB (TRUHACKS) (3rd Place) – Flask | Jinja2 | Firebase | Figma | HTML/CSS/JS/PHP

• Secured **3rd** place at hackathon by demonstrating NoHungerZone's innovative solution to tackling food insecurity.

• Designed core features, including food pantry search, donor listings, and matching using **HTML**, **CSS**, and **PHP**. **THREADHUB** – Flask | Jinja2 | Firebase | Figma | HTML/CSS/JS/PHP

- Developed e-Commerce web app that matches eco-friendly businesses with sustainable freelancers.
- Designed **UI** on **Figma** and coded responsive frontend website mockups with **HTML**, **CSS**, **JS**, and **PHP** for database.

• Built **Python** backend using the **Flask** framework and **Jinja2** for templating, with Firebase for user registration.

<u>SUPER SCIENCE CONFERENCE</u> – T-SQL | ERD Design

• Collaboratively Developed a robust **SQL** database using **T-SQL** resulting in **500** entries being stored in the database.

• Illustrated Database to professors, elucidating **ERDs** and **database** concept through a compelling demonstration. TETRIS CLONE – Java | Swing | File I/O | OOP

- Developed a functional Tetris game by applying **OOP** principles in Java to create a modular game structure.
- Designed a score tracking, game state saving/loading, and leaderboard system by applying **OOP**, file I/O, and eventdriven programming in **Java**, using **Java Swing** and **KeyListener** to enhance user engagement and gameplay continuity.

<u>PORTFOLIO WEBSITE</u> – JavaScript | HTML/CSS | Git | Storybook | Jest | CI/CD

- Built a fully responsive portfolio website using JavaScript, HTML, and CSS, showcasing frontend expertise.
- Integrated Git version control, enabling seamless updates and feature tracking to ensure proper backtracking.
- Implemented **UI** component testing using **Storybook** and **Jest**, ensuring design consistency across updates.
- Leveraged **CI/CD pipelines** to automate deployments, ensuring a **90%** uptime for continuous improvements.

LEADERSHIP & ACTIVITIES

SENATOR

Student Government Association

• Advocated for **1,500+** students in college of SEM and co-authoring 6 funding proposals, securing **\$12,000+** in grants. **SGA REPRESENTATIVE** Association of Computing Machinery

• Placed **3rd** in ICPC 2023 & 2024; drafted tech funding bills and supported competitive programming initiatives. **SLC COORDINATOR** Student Life Coalition

• Organized **30+** student events for **4,000+** attendees, enhancing student involvement through collaborative planning. **LAUNCH LEAD AMBASSADOR** Fizz Social - McNeese

• Led **46** ambassadors to launch a new social app, driving **2,000+** DAUs through optimized outreach and event execution. **OUTSTANDING MEMBER** National Society of Black Engineers

 Recognized as Outstanding Member of the Year for achieving the highest engagement score with 100% participation in all regional and national events, including NSBE 50, and representing the chapter at McHacks 2.0 (1st) and McHacks 1.0.
PRESIDENT Nepalese Student Association

• Organized **10**+ large-scale events, managed finances, and mentored **100**+ international students. VICE PRESIDENT International Student Association

• Secured official organization status, designed branding materials, and coordinated cultural awareness programs. SECRETARY Mathematical Association of America

• Documented meetings, supported event logistics, and promoted math-focused academic events.