Stephen Craig

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SKILLS SUMMARY

- Programming languages: C++, Java, Python, JavaScript, HTML/CSS, React, SQL, Git, Flutter, PostgreSQL
- Software development skills: Agile, Scrum, Unit Testing, Automated Testing, Algorithm Analysis, AI
- Soft skills: Teamwork, Critical Thinking, Communication, Creativity, Adaptability, Time Management
- Experienced in Microsoft Office Suite, MySQL, Visual Studio Code, Google Cloud, MS Azure
- LinkedIn: www.linkedin.com/in/stephen-craig-b85488253
- GitHub: https://github.com/TedDBear

EDUCATION

Associates of General Studies with Honors

May 2023

Tyler Junior College, Tyler, TX. | GPA 4.0

Bachelor of Science in Computer Science with Honors

May 2025

University of Texas at Tyler, Tyler, TX. | GPA 4.0

COMPUTER SCIENCE PROJECTS

LexiCrunch Fall 2023

- Designed and developed a word game using the **agile** methodology as part of a 4-person team.
- The game requires players to think of as many words from a group of 100 letters as possible in 60 seconds.
- Coded in HTML, CSS, JavaScript, and React.
- Learned to add files to **GitHub** using **Git**.

Software Methodologies Research Paper

Fall 2023

- Wrote a research paper about the effectiveness of major software development methodologies.
- Methodologies discussed include XP programming, DevOps, Kanban, Rapid Application Development, Joint Application Development, V-model, and AI integration in software engineering.
- Graded each methodology based on how much they save time, money, and affect the software's quality.
- Concluded that **DevOps** is the best methodology overall because it ensures the developers and operators work together, which saves time with feedback and increases the quality of the software.

Trip Sharing Database

Spring 2024

- Collaborated with a team of six members to design a database for a trip-sharing website.
- Contributed to the creation of an **Entity-Relationship (ER) model** and performed **normalization** to optimize database structure.
- Acquired proficiency in **MySOL** for coding and managing the database effectively.

Craig.com Search Engine

Spring 2024

- Developed a small-scale search engine that compares how a user's query matches certain research papers.
- Learned and used information retrieval techniques such as tokenization, tolerance retrieval, and ranking.
- Coded in C++ and Python.

Sprout

Spring 2025

- Collaborated with a team of 6 developers to create **Sprout**, an interactive web platform powered by **React** and **Next.js**, designed to educate users about gardening and assist in planning personalized gardens.
- Incorporated **UI/UX design principles** to ensure an intuitive and engaging user experience, including seamless **drag-and-drop functionality** for garden layout customization.
- Engineered advanced algorithms to detect **plant-spacing conflicts** and **incompatible plants**, promoting optimal garden health and organization.
- Successfully delivered this project as my **capstone**, and won **first runner up** at the capstone fair, highlighting teamwork, a user-focused approach, and a high demand for a gardening planner website.

Caption Snap

Fall 2024 – Spring 2025

- Developed and launched an image captioning app on Google Play as part of my senior honors project.
- Built and integrated Machine Learning/AI models using TensorFlow to recognize and generate captions for images.
- Utilized **Google Cloud** to store the model and enable real-time functionality for captioning scenes captured by users.
- Designed the **frontend with Flutter** and implemented the **backend using Python**, ensuring seamless performance across all devices.

WORK EXPERIENCE

Courtesy Clerk, Brookshire's, Tyler, TX.

May 2020 – July 2023

- Worked 12 hours/week during high school, 6hr/week during college at Tyler Junior College, and 30 hours/week during the summer breaks.
- Awarded an official hero ribbon for helping a customer with severe walking disability.
- Gained valuable communication and critical thinking skills.

Virtual AI Teaching Assistant, UT Tyler

Jan. 2025 – May 2025

- Worked 10 hours per week during the spring semester as an undergraduate research assistant on the Virtual Teaching Assistant (VTA) project.
- Developed an **AI** chatbot leveraging a **RAG (Retrieval-Augmented Generation)** model and vector databases to provide accurate answers to student queries based on class-specific resources.
- Designed and implemented a FastAPI server to connect vector databases with student and professor front-end interfaces and ensured it can handle multiple API requests at once.
- Created and managed **PostgreSQL** vector databases populated with documents uploaded by professors to enhance the RAG model's accuracy and output.
- Improved the performance of the RAG model and collaborated with the university to deploy the system on their **private cloud server**.

Presenter at the I.A.C.I.H.E., Al Akhawayn University

April 2025

- Presented the **Virtual Teaching Assistant (VTA)** project for UT Tyler at the **International Annual Conference on the internationalization of Higher Education** (I.A.C.I.H.E.) Conference at Al Akhawayn University, focusing on its technical components.
- Detailed the **RAG model architecture** and its integration with **PostgreSQL** vector databases and **Bert embeddings** for accurate query responses.
- Highlighted the deployment process on the **private cloud servers** and the development of a **FastAPI** server to connect vector databases with user interfaces.

CERTIFICATION/HONORS

Summa Cum Laude

May 2023 & May 2025

• Awarded for graduating with a 4.0 GPA at Tyler Junior College and the University of Texas at Tyler.

Outstanding Computer Science Student at UT Tyler

April 2025

Recipient of the Outstanding Computer Science Student Award 2025, recognizing my exceptional
academic performance, contributions to UT Tyler's Virtual AI Teaching Assistant, and leadership in the
field.

First Runner Up at the Capstone Fair

April 2025

• Achieved **First Runner-Up** at the Spring 2025 **Capstone Fair**, showcasing innovation, technical proficiency, teamwork, and effective presentation skills in a competitive academic setting.

IBM Artificial Intelligence Fundamentals

May 2024

• Completed a certification course that teaches AI, Machine Learning, and Computer Vision.

IBM Cyber Security Fundamentals

May 2024

Completed a certification course that teaches Cyber Attacks, Encryption, and Ethical Hacking.