

# 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](https://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 **MySQL** 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.