



# Patrick Fontaine

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## Summary

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Detail-oriented student seeking an internship or entry level position. Leveraging a solid foundation in C, Java, and Python, paired with hands-on project experience to contribute to real-world software development challenges. Eager to gain professional experience and contribute to innovative work.

## Education

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**Texas Tech University**, *Honors Program*

Expected Graduation: Aug 2025

- **Degree:** BS in Computer Science, minor in Math
- **GPA:** 3.8/4.0

## Technical Projects

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**Meal Planner App**, *Class Project*, Human-Computer-Interaction

Fall 2024

- Developed a mobile app using Figma, React Native, Firebase, and Expo Go for testing
- Users can explore, save, and view recipes, manage a grocery list, and plan meals
- Utilizes account authorization, Spoonacular API for browsing recipes, dayjs for calendar

**Movie Booking System**, *Class Project*, Software Engineering

Fall 2024

- Developed a live web application using Figma, React, Firebase, deployed with GitHub pages
- Users can browse and buy movie tickets, access saved tickets, and rate and write reviews
- Implements user registration and an admin feature to manage the database view tickets bought

**Golf Handicap App**, *Independent Project*

Summer 2024

- Developed a live web application using Figma, Next.js, Firebase, deployed with Vercel
- Users can track their score in a round of golf, edit previous scores, and view their final score
- Stores all the user's rounds and calculates the player's average handicap

**Medical Appointment Scheduler**, *Class Project*, Object-Oriented Programming

Spring 2024

- Developed a program in Java to create and organize medical appointments for patients
- Implements different appointment classes using inheritance and abstraction
- Manages and stores patient and appointment information for seamless end-user access

**Matrix Evolution with Multiprocessing**, *Class Project*, Concepts of Programming Languages

Spring 2024

- Developed a program in Python that evolves any size matrix using Game of Life rules
- Used Texas Tech's HPCC to optimize computational efficiency for large-scale simulations
- Implemented multiprocessing with pool class by calculating number of cells for each process

## Teaching Experience

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**Learning Assistant** Software Engineering & Concepts of Programming Languages

Spring 2025

- Provide hands-on support to students during class to reinforce key concepts
- Lead Learning Assistant Problem Solving sessions outside of class to enhance student success
- Produced multiple YouTube tutorials for course material and additional learning

## Technical Skills

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**Programming Languages:** C++, C, Java, Python, Matlab, JavaScript, HTML, CSS

**Tools:** VS Code, Git, Github, React, React Native, Next.js, Expo, Firebase, Figma, Jira