

Thomas Payton

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EDUCATION

Iowa State University

Ames, IA

Bachelor of Science in Software Engineering, Minor in Cyber Security

Aug. 2021 – May 2025

- GPA: 3.75/4.0 (Dean's List all semesters)
- Executive Web Developer/Designer for TREND Magazine

EXPERIENCE

Splunk

May 2024 – Aug. 2024

Software Engineer Intern

Boulder, CO

- Engineered and implemented an accessibility feature for Splunk's core dashboard product, which accounts for **80%** of the company's revenue, by leveraging React to respond to user demands for simplified design
- Coordinated across multiple teams to deploy a feature across three distinct repositories, ensuring cohesive updates and seamless functionality
- Directed my teams "Splunk 4 Splunkterns" project, conducting in-depth data analysis on mental health trends in the tech sector to craft a data-driven dashboard that correlates workplace conditions and mental health

John Deere

May 2023 – Aug. 2023

Software Engineer Intern

Moline, IL

- Enhanced website accessibility for **240,000** John Deere customers by implementing API endpoints in Java Spring
- Improved deployment efficiency and runtime performance of a monolithic application by refactoring over **25** outdated React tests using TypeScript
- Enabled agile delivery of features by participating in daily stand-ups and 2 week sprints for a 5-member scrum team, delivering **95%** of user stories on time over a 3 month period

PeachPay, Inc.

Jan. 2022 – Aug. 2022

Software Engineer Intern

Ames, IA

- Designed and implemented a solution to a payment processing error resulting in **1200** fewer Sentry errors annually
- Engineered solutions to frontend, backend, and customer-specific issues, resolving over **50** assigned tickets
- Developed the integration of Amazon Pay, Apple Pay, and Google Pay within the checkout modal leading to a **75%** increase in the available payment methods

PROJECTS

Live AI Trivia Solver | *Python, GPT-4, Google's Gemini Vision, OpenCV, PyTesseract*

Feb. 2024

- Spearheaded the development of a trivia answer automation tool for the mobile app TapTap Live, integrating OCR, AI models including GPT-4, and selective screen scanning techniques (thopay.dev/blog/trivia).
- Engineered a request flow utilizing Google's Gemini Vision for image-based questions and OpenAI's GPT-4-Turbo for text analysis, significantly enhancing answer accuracy based on recent events and visual cues.
- Achieved a significant reduction in answer time to approximately **3.5** seconds by implementing a selective scanning method using OpenCV, tailored for real-time trivia questions.
- Incorporated reverse image searching capabilities to support both OCR and AI components, establishing a balanced solution that excels in both speed and accuracy during live game play, achieving **97%** accuracy across games.

TREND Magazine Website | *Next.js, Strapi, GraphQL, Postgres, Tailwind CSS*

Jan. 2023 – May 2023

- Designed a complete UI mockup using Figma based on specifications from TREND Magazine Editor-In-Chiefs
- Translated Figma mockups to Next.js frontend using React and Tailwind CSS
- Architected a full-stack blog by building a GraphQL, Strapi, and Postgres backend to host website content
- Deployed Next.js blog to Vercel (TrendMagISU.com) and Strapi + Postgres backend to Railway to minimize cost

TECHNICAL SKILLS

Languages: Java, JavaScript, Python, C/C++, PHP, HTML/CSS

Frameworks and Libraries: Spring, Next.js, React, React Native, Node.js, Express.js, Koa, Flask

Developer Tools: GitHub, GitLab, Visual Studio Code, Figma, Postman, Heroku, MongoDB, Amazon Web Services (S3), Wireshark, Vercel, Strapi

Experience With: Data Structures, Algorithms, Network Analysis, Pen Testing, UI/UX Design, Reverse Engineering