Preston Fox

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Education

Indiana University of Pennsylvania (IUP)   Indiana, Pennsylvania
Bachelor of Software Engineering, Minor in Cybersecurity, GPA: 3.22   *Aug 2021 – Dec 2025*

Experience

Independent Software Developer | *Python, HTML, Microsoft Access, Inno Setup*   Elmira, New York
WIS International   *Sep 2025 – Present*
[GitHub Repo](#)

- Created **WIS Accuracy Report Generator** to quantify individual counter **speed, accuracy, and zone-level discrepancy trends** across daily inventory events.
- Replaced manual interpretation of raw aggregate accuracy data with automated analysis, saving managers an estimated **1–3 hours per week** and enabling faster, **data-driven coaching decisions**.
- Analyzed performance data for **20–30 counters** per daily inventory event, identifying under and over-performing counters and enabling managers to adjust workflows, resulting in faster corrections and reduced inventory discrepancies.
- Provided **zone-level accuracy breakdowns** to highlight recurring problem areas, allowing day-by-day workflow adjustments to reduce discrepancies across stores of varying sizes.
- Generated **daily automated reports** for **district and area managers**, reducing decision-making time and enabling data-driven adjustments across multiple teams and stores.
- Processed **inventory, historical, and seasonal data** using **Python** and **SQL** to compute performance metrics across teams.
- Planned and built **PyQt6 interfaces** for streamlined employee hours input and database connectivity, improving usability for non-technical managers.
- Ensured production reliability through testing and mock database workflows, and added **local storage** for trend analysis.

Projects

Knowledge Hub | *TypeScript, React, Supabase, PostgreSQL, Tailwind CSS*   *Jun 2025 – Sep 2025*
[GitHub Repo](#)

- Created a collaborative knowledge platform enabling users to create, organize, and share **structured resources across teams**.
- Executed **real-time collaboration and messaging** to support concurrent editing and team communication.
- Applied **RESTful APIs** to synchronize frontend state with backend data and real-time updates.
- Expanded **project management tools** and **smart search**, improving content discoverability across large knowledge sets.
- Enforced **Supabase authentication** with row-level security, ensuring secure, role-based access control.
- Built **user profiles, bookmarking, notifications, and engagement analytics** to track collaboration activity.
- Optimized interface for **responsiveness, accessibility, and cross-browser compatibility**, with **dark/light mode** support.

Auction House & E-commerce System | *JavaScript, React, Flask, MySQL, CSS*   *Jan 2025 – May 2025*
[GitHub Repo](#)

- Led a Scrum team of five to deliver a full-featured **auction and e-commerce platform**, delivering the **MVP in 12 weeks**.
- Created **RESTful APIs** and executed **real-time bidding workflows** using **Flask** and **Socket.IO.**
- Built a **React frontend** with **role-based dashboards** and dynamic pages for listings, bids, and account management.
- Applied **real-time messaging and dashboards** to simulate live auction environments.
- Integrated **Stripe** for payments, **MailerSend** for notifications, and **PostHog** for analytics tracking.
- Enforced **secure authentication flows, protected routes**, and relational **MySQL schemas** to support backend operations.
- Applied **frontend and backend testing workflows** to validate functionality and performance prior to deployment.
- Supported **50+ test users** in auction and e-commerce workflows, improving platform stability and usability feedback.

Skills

Languages: JavaScript, TypeScript, Python, Java, HTML, CSS, SASS, SQL
Frameworks/Technologies: React, React Native, Vue, NodeJS, Flask, Tailwind CSS
Databases & Tools: Supabase, MySQL, PostgreSQL, MongoDB, Docker, Git, GitHub