

# Joseph Tanner Fox

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## EDUCATION

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**Master of Science in Computer Science**, *Georgia Institute of Technology* 2023 – Current

- **Coursework:** Information Security, Computer Networks, Video Game Design and Programming

**Bachelor of Science in Information Communication Technology**, *University of Kentucky* 2019 – 2022

- **Coursework:** System Analysis, Intro to Program Design, Information Architecture, Semantic Web Development, Linux System Administration

## PROFESSIONAL EXPERIENCE

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**Software Engineer**, *Booz Allen Hamilton* February 2023 – Current

Army- DEMSHORAD, IFPC

- Collaborated with a cross-functional team of engineers to optimize an existing data analytics suite using statistical analysis methods to visualize trends of the overall system through Python Pandas, NumPy, Matplotlib and Seaborn.
- Designed and implemented a full stack analytics application, integrating front-end and back-end technologies to ensure seamless user experience and data flow.
- Constructed a dynamic SQLite database utilizing Python integration, enabling seamless data storage, retrieval, and manipulation for versatile analysis and visualization options, leading to increased flexibility in adapting to changing data requirements.
- Employed proto messages and Google's Protocol Buffers (protobuf) to establish a robust and standardized approach for data serialization and transmission.
- Spearheaded front-end development using Glade and GTK's robust framework to implement dynamic UI elements, interactive widgets, responsive layouts, resulting in an engaging user journey and enhanced usability.
- Utilized agile methodologies to iterate quickly on software development, conducting regular code reviews and contributing to continuous integration and continuous deployment (CI/CD) pipelines for streamlined development workflows.

National Science Foundation – ITSIS, ITMAS

- Implemented and configured Jenkins pipelines, automating the development lifecycle, from code integration to deployment and delivery for NSF applications.
- Demonstrated strong troubleshooting skills, identifying, and resolving issues in the development and production environments to optimize the pipelines for efficiency and reliability.
- Developed an automated Jenkins pipeline to execute Python scripts, leveraging APIs from the Atlassian suite of tools for service validation across different instances.
- Deployed applications using Docker and Kubernetes, optimizing resource utilization, and enhancing scalability.
- Managed NSF cloud infrastructure on AWS, leveraging services such as EC2, S3, RDA and Lambda to optimize resource allocation.

**Solutions and Services Engineering Intern**, *Badger Technologies* September 2022 – February 2023

- Remotely monitored and corrected issues with robots in grocery stores internationally using proprietary cloud-based virtual reality remote control tools.
- Employed Jira and Confluence to track repetitive hardware and software bugs for improvement on documentation and further the robotic design process.

## SKILLS & OTHER

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**Core:** Python C++, C#, SQL, HTML/CSS, JavaScript

**Additional:** Pandas, NumPy, Seaborn, GTK, Wireshark, Git, Docker, Jenkins, AWS, Vue.js, Tailwind, FastAPI

**Security Clearance:** Active Secret Clearance, NSF Public Trust