Elijah Kulpinski

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Education

University of Wisconsin - Parkside	GPA: 4.0/4.0
Master of Science - Computer Information Systems: *IT Management Track*	Est. May 2025
Bachelor of Science - Computer Science, Mathematics	May 2024

Certificates: Data Science, Mobile App Development
Honors: *Provost's & Dean's List* x4; *Dean's List* x1

Skills

Programming Languages: Python, Java, LaTeX, React Native, Expo, JavaScript, Kotlin, Swift, Rust
Databases/Cloud: AWS, GCP, Azure, Firebase, MongoDB, SQLite, MS SQL Server
Frameworks: Transformers, PyTest, Playwright, Streamlit, Pandas, Matplotlib, Scikit-Learn, PyTorch
Tools/Platforms: Terminal, Git/GitHub, Jira, Confluence, Docker, HuggingFace, Colab, LangChain

Work Experience

AbbVie Inc.	*North Chicago, Illinois*
Python Developer Intern	June 2024 – Dec 2024

- Built **127 tests** from scratch on an untested, very coupled **Streamlit** app, using **PyTest** and **Playwright**.
- Implemented **4** automated **GitHub Actions**, ensuring continuous testing and achieving **65% code coverage**.
- Designed **end-to-end tests** using the **Page Object Model**, covering **10+ workflows** and improving testability.
- Led testing adoption across the team, contributing to the expansion of test coverage to **269 tests**.
- Documented **Python** code within **GitHub**, **agile** tasks using **Jira** and protocols using **Confluence.**

Projects

Parkside Website Assistant
- **Led** a team of **5** to craft an **AI chatbot** for streamlined website navigation and information retrieval.
- **Developed** a **custom dataset** from **Python** web-scraped content to **fine-tune** an **LLM** for tailored interactions.
- **Deployed** the custom client-side model using **GitHub**, **Firebase**, **WebLLM**, and **RAG** for enhanced accuracy.

Empowering Education in the Digital Age
- **Spearheaded AI research** to supplement education through personalized LLM-based learning.
- **Conducted** LLM fine-tuning with **Transformers** on **HuggingFace** model in **Google CoLab**.
- **Proposed** LLM application in **pedagogy** to elevate student engagement and critical thinking.

Publications

- **E Kulpinski**., *et al.*, "From Demo to Deployment: A 12-Week Longitudinal Study of AIELA," *Undecided, <u>In-Progress.</u>*
- **E Kulpinski**., *et al.*, "Investigating Potential Safeguards Against CSI-Based WiFi Sensing," *Undecided, <u>In-Progress.</u>*
- B Murry., **E Kulpinski**., *et al.*, "A Comparison of Student Preferences for Interfacing with an AI-Enhanced Learning Assistant," *IEEE SoutheastCon 2025, <u>Presented</u> Mar 2025.*
- V. Ramasamy., **E. Kulpinski**., *et al.*, "Enhancing CS Education with LAs Using AI-Empowered AIELA Program," *2024 IEEE Frontiers in Education Conference (FIE)*, doi: <u>10.1109/FIE61694.2024.10893294</u>.
- V. Ramasamy *et al.*, "Enhancing User Story Generation in Agile Software Development Through OpenAI & Prompt Engineering," *2024 IEEE Frontiers in Education Conference (FIE)*, doi: <u>10.1109/FIE61694.2024.10893343</u>.