

Zach Bernard

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Education

BACHELOR OF COMPUTER SCIENCE | UNIVERSITY OF KENTUCKY | 2018-2024

Experience

SOFTWARE ENGINEER INTERN | UNIVERSITY OF KENTUCKY, CAAI | NOVEMBER 2024-PRESENT

- Collaborated with a team of researchers and engineers, leveraging cutting-edge machine learning frameworks to solve practical vision-related challenges.
- Contributed to the Hugging Face Transformers library, implementing improvements and troubleshooting issues to support the open-source AI community.

SOFTWARE DEVELOPER INTERN | WHITE CRANE CREATIONS | FEBRUARY 2024 – JULY 2024

- Contributed to the development of a facial detection program for enhanced security applications, focusing on correlating prison record images with sex offender addresses.
- Conducted thorough debugging and testing to identify and resolve discrepancies in image-to-address mappings, ensuring a reliable final output.
- **Assisted in preprocessing and cleaning a dataset of prison record images**, ensuring high-quality input data for improved accuracy of the facial detection algorithm.

FREELANCE SOFTWARE ENGINEER | MARCH 2020 - JULY 2020

- Collaborated directly with the client to gather requirements, design features, and ensure the project aligned with their specific needs, achieving a high level of client satisfaction.
- Designed and developed a custom Discord bot over a 5-month project timeline, leveraging Python and Discord API to deliver a fully functional, scalable solution.
- Implemented advanced bot functionalities, including automated moderation, custom commands, and integration with third-party APIs.

BARTENDER, SERVER, TRAINER | J. ALEXANDERS | JUNE 2020-PRESENT

- Honed time management skills by successfully balancing job responsibilities with a full academic course load (or something to this effect, emphasize the fact that you had a job while being a student)
- Clearly and effectively communicated with both guests and coworkers in a fast-paced environment. Maintained a 98% customer satisfaction rating while anticipating the needs for up to 300 guests per evening
- Demonstrated leadership and teaching abilities by training 30+ staff members on various points of service and restaurant knowledge.

Projects

AI POKÉMON TEAM BUILDER | PYTHON, REACT, HTML, CSS

- Orchestrated the development of an innovative AI-driven Pokémon Team Builder project, showcasing proficiency in Python, React, JavaScript, HTML, and CSS.
- Implemented a Genetic Algorithm using PyGAD, optimizing team composition, emphasizing strategic diversity and strength.
- Demonstrated adept data management skills by scraping extensive Pokémon data, managing JSON files for efficient storage, and retrieval.
- Successfully collaborated within a team, ensuring effective SDLC version control, communication, and integration of diverse skill sets.
- Applied project management skills from ideation to deployment, emphasizing continuous improvement and innovation.

DISCORD USER ALERTS BOT | JAVA, REPL.IT, UPTIME ROBOT

- Developed a Discord bot to assist community managers with user alerts, leveraging the Discord API to efficiently acquire and process large amounts of user data.
- Designed a simplified command handler for improved adaptability and ease of use, reducing the need for manual intervention and increasing efficiency.
- Created a scalable and personalized system that can be easily customized for the needs of different users and communities.

Skills and Qualifications

RELEVANT COURSES

- Programming with Machine Learning | Python
- Intro to AI | Java
- Database Management | MySQL, Python
- Graphics and Multimedia | Python
- Computer Networking | C
- Web Programming | HTML, CSS, JavaScript

TECHNICAL SKILLS

- Languages: Python, C++, C, MySQL, HTML, CSS, PHP, Java, JavaScript, R, MATLAB
- Developer Tools: Visual Studio, VS Code, RStudio, Eclipse
- Frameworks: FastAPI, React, semantic.ui, YOLO
- Other Proficient Software: Fusion 360, Creo Parametric