Kevin Peng

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Education

University of Toronto Expected Graduation - May 2028
Bachelor's of Applied Science in Engineering Science *Toronto, ON*
Relevant Coursework: Data structures, Algorithms, Software engineering, Deep learning

Technical Skills

Languages: Python, C, MATLAB, JavaScript, SQL, Bash
Tools: Flask, Git, Microsoft Office
Testing and Debugging: Manual Testing, Unit Testing, Functional Testing
Platforms: Windows, Mac, AlmaLinux, Ubuntu

Projects

Name Rater | *Python, API, JSON, Data Processing, Algorithm Design* - GitHub May 2024
- Built an application to rate names based on factors such as rarity and cultural significance, integrating external APIs for data collection.
- Designed and executed comprehensive test cases to verify the accuracy of algorithms, ensuring consistent and reliable outputs.
- Validated the final scoring algorithm through cross-comparisons with real-world name datasets, ensuring accuracy and robustness.

Synonym Evaluator | *Python, NLP, Text Analysis, Vectorization* - GitHub Dec 2024
- Developed a system to analyze word meanings using cosine similarity, ensuring precise semantic comparisons between words.
- Performed extensive testing of the system with a variety of text corpora, identifying and resolving edge cases to improve performance.
- Implemented logging and debugging mechanisms to track the accuracy of the testing mechanism, improving accuracy by 10%.
- Created hundreds of test cases to verify system performance and handle corner cases, ensuring high reliability and scalability.

Experience

Wind Turbine Pitch Control Sep 2024 – Present
UTWind *Toronto, ON*
- Designed and implemented a pitch control system for a Nema 24 stepper motor to optimize wind turbine performance, focusing on precision and robustness.
- Conducted thorough testing and debugging of hardware systems, resolving connectivity issues with SSH and PuTTY.
- Wrote and validated testing code for Raspberry Pi GPIO on the motor rig, including breadboarding and hardware connections.

Awards

UTRAHacks Hackathon | University of Toronto 2025
- Won 1st place prize in the closed competition out of 400+ hackers.

Faculty of Applied Science and Engineering Award | University of Toronto 2024
- Awarded scholarship of $10,000 dollar value for academic merit.

UTAPS Marion Choi Award | University of Toronto 2024
- Awarded bursary of $10,000 dollar value for academic merit.

National Biology Competition | University of Toronto 2024
- Placed 34th of over 2000 competitors (98th percentile).

Avogadro Chemistry Exam Contest | University of Waterloo 2023
- Placed in the top 250 of over 6000 competitors in the US and Canada (96th percentile).