PETER OTT

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About Me

As seasoned machine learning engineer, I am committed to pushing the boundaries of artificial intelligence applications. I constantly strive to expand my proficiency and to rise as an authority in the field of work.

Education

MS in CS with Machine Learning Concentration - 2024
George Mason University - College of Engineering and Computing

BS in CS, Honors College - 2017
George Mason University - College of Engineering and Computing

Experience

BTI360: Data Scientist / Machine Learning Engineer
February 2020 - Present

- Created a large-scale, high throughput news clustering system, delivering highly relevant and prioritized content to users. Responsible for a majority of the data clustering behavior and AI enrichments, as well as significant design decisions from prototype stages through production maturity.
  - Prompt engineering, embeddings, RAG, clustering, Docker, Python, SQL
  - "the most advanced use case implementation of LLMs in the world" - MSFT Public Sector CTO
  - Interview about the application from a top stakeholder
- Demonstrated consistent success and value delivery across multiple domains, including: Natural Language Processing, classification, information consolidation, aggregation, and semantic segmentation.
  - PyTorch, Transformers, OpenAI, HuggingFace, SageMaker, GPU Acceleration
- Created and delivered technical reports covering my team's modeling efforts, the state of the customer's data holdings, and upcoming technologies.
- Key player for developing internal AI/ML training at BTI360.

Next Century (acq. by CACI): Machine Learning Engineer
January 2019 - February 2020

- Deep learning data fusion research on DARPA's MediFor initiative, focusing on the detection of deepfakes and other image/video manipulations.
  - PyTorch and TensorFlow for model creation and research

IDT: Intern - 2013 to 2017 , Assoc. SWE - 2017 to 2018

- Machine Learning powered intelligent storage, sorting, and deletion of image files based on relevancy and task importance in a space constrained system
- Rapid discovery of system vulnerabilities via ML powered fuzz testing
  - Python, genetic algorithm

v2024.6.28

Hobbies

Open Source Contributions

<u>Baby Buddy - Home Assistant Add on</u>
Track baby related tasks as to not forget when the last feeding or nap was. Baby Buddy was an existing application, my work packaged it into an easy to install Home Assistant Add on. Estimated 600 active users.

Docker, NginX

Home Assistant powered home automation

Various Raspberry Pi's and ODroids, ESP32s hosting home security, surveillance cameras, network wide ad-blocking, smart light control, presence detection, file storage,family location sharing and more!