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SUMMARY

Detail-oriented Software Developer with a strong foundation in Computer Science and Biomedical Engineering. Experienced in software development, distributed systems, machine learning, and algorithm design. Proficient in Python, Java, C++, and AI frameworks like TensorFlow, PyTorch, and Hugging Face. Motivated to apply problem-solving and AI skills to build innovative, scalable solutions that enhance user experiences.

EDUCATION

Georgia Institute of Technology Atlanta, TX
M.S. in Computer Science | GPA: 4.0 | Graduation Date: May 2027
Southern New Hampshire University Manchester, NH
B.S. in Computer Science | GPA: 4.0 | Graduation Date: Dec 2024

PROJECT

EEG Signal Processing with 1D CNN
Personal Project — Deep Learning, PyTorch
- Simulated EEG signals (14 channels, 128 time steps) for binary classification (normal vs epileptic) using a custom 1D CNN architecture.
- Implemented model training, signal generation, and performance evaluation in PyTorch, achieving high accuracy within 5 epochs.
- Outlined pipeline generalization to real EEG datasets (e.g., CHB-MIT, TUH) and proposed advanced architectures like LSTM or Transformers.

Stress Detection via Emotion Classification
Personal Project — NLP, Hugging Face Transformers
- Built a real-time text-based stress level detector using a pretrained BERT emotion classification model (DistilBERT) on Hugging Face.
- Created a conversational check-in tool to identify stress-indicative emotions (e.g., fear, sadness, anger) and simulate user wellness feedback.
- Proposed multimodal extensions combining voice, HRV, and EDA signals using DEAP or WESAD datasets for future deployment in mental health tools.

Medical Chatbot for Symptom Triage
Personal Project — Python, Transformers, GPT-2
- Implemented a hybrid rule-based + LLM chatbot for symptom triage using Hugging Face's GPT-2 model and custom logic for common health scenarios.
- Designed conversation flow to prioritize deterministic rules while falling back to generative responses for general health queries.
- Outlined extensions for real-world deployment including clinical API integration, LangChain-based routing, and speech I/O capabilities.

Pirate Intelligent Agent Game Development
Course Project — Southern New Hampshire University
- Designed and implemented a deep Q-learning algorithm to navigate an 8x8 maze, using reinforcement learning techniques to optimize decision-making processes.
- Built and trained a neural network with TensorFlow and Keras, demonstrating strong skills in machine learning and algorithm development.
- Increased the agent’s efficiency in navigating the maze by 20% through experience replay and optimized Q-learning strategies.

TECH STACK

- Programming Languages: Python, Java, C++
- AI/ML Frameworks: TensorFlow, PyTorch, Hugging Face Transformers
- Tools: Docker, Git, Jupyter, Linux
- Concepts: Machine Learning, Deep Learning, NLP, Computer Vision, Data Preprocessing, Transfer Learning, Model Deployment

JOB EXPERIENCE

Artificial Intelligence Mastery: Complete AI Bootcamp 2025
Intensive 16-week AI Training Program Mar 2025– Jul 2025
- Completed a comprehensive AI bootcamp covering Python programming, machine learning, deep learning, NLP, and AI frameworks (TensorFlow, PyTorch, Hugging Face).
- Gained hands-on experience building, training, and deploying AI models for real-world applications including image recognition, NLP tasks, and time-series forecasting.
- Developed skills in data preprocessing, transfer learning, containerization with Docker, and deployment of ML models via scalable APIs.
- Mastered full ML lifecycle management: model training, evaluation, monitoring, drift detection, and retraining pipelines.
- Applied statistical and mathematical foundations to improve model performance and robustness.
- Worked on practical AI projects simulating industry scenarios to prepare for AI engineering roles.

Product Development Engineer I
Resolution Medical Jun 2023– Present
- Designed and developed implantable neurostimulation devices and brain-computer interface (BCI) systems with an emphasis on software-hardware integration.
- Conducted Design Verification Testing (DVT) to ensure FDA compliance.
- Collaborated with engineers from software, electrical, and mechanical disciplines to ensure successful development of electromechanical systems.