

Britt Ho

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TECHNICAL SKILLS

Specialties: Machine Learning, Deep Learning, Computer Vision, Natural Language Processing, HPC, Full-stack, Infra

Programming Languages: Java (advanced), C++ (advanced), Python (advanced); Swift, R, and JavaScript (intermediate)

Technical: PyTorch, MQTT, Linux, LLMs, TCP/IP, Postgres, TensorRT, SQL, NoSQL, AWS, TensorFlow, SKLearn

Certifications & Training: Cloud Computing (Coursera), macOS System Administrators (LinkedIn), C# with Unity (LinkedIn), Social and Behavioral Research (CITI), Deep Learning (NVIDIA), Develop apps for Apple platforms (Apple)

EDUCATION

University of the Pacific | B.S. in Computer Science & Data Science | GPA: 3.7 CA 12/2024

University of Illinois at Urbana-Champaign | Computer Engineering IL 08/2020 - 05/2022

Relevant courses: Artificial Intelligence, Computer Game Technologies, Computer Systems & Networks, Analytics Computing, Computer Graphics, Computer Simulation, Operating Systems, Application Development

Achievements: Dean's Honor Roll, University's Best Project, Elsevier MLWA's [Publication](#), AI [Book Chapter](#), 2nd place H₂O [Hackathon](#)

EXPERIENCE

ACE Mentorship LLC Remote, CA 04/2025 - Present

Software Engineer Intern | Search Engines, Web Crawling, Semantic Search, Sentence Transformers, Deep Learning, Embedding Models

- Building a domain-specific search engine involving custom web crawlers, indexing, and vector-based retrieval pipelines.
- Optimizing vector spaces via normalization, dimensionality reduction, and hybrid retrieval (keyword + semantic search).
- Built ML pipelines for dataset generation, neural network training, and AI-driven semantic retrieval.

QQ Tech, Inc Tracy, CA 08/2024 - 12/2024

Data Science Intern | Web crawler, Machine learning, Natural language processing

- Developed robust **web scraping** pipelines to gather and process structured and unstructured data for **NLP** projects.
- Implemented efficient classification algorithms by collaborating with front-end developers and data scientists.

NVIDIA - High-Performance Computing and Deep Learning Lab Santa Clara, CA 01/2024 - 08/2024

Performance Engineer Intern | Deep Learning, HPC, PyTorch, TensorRT, Performance Testing

- Optimized and benchmarked **GPU** performance across PyTorch, TensorFlow, and other **HPC/DL** frameworks through kernel, framework, and system-level tuning.
- Automated benchmarking and monitoring with Python, streamlining data collection and accelerating performance analysis.
- Resolved performance issues with global teams, improving GPU utilization, scaling, and system reliability
- Produced comprehensive reports with Excel and Tableau, guiding strategic decisions for 5+ global teams.
- Delivered 100% of critical tasks on time, ensuring uninterrupted workflows for high-impact projects.

University of the Pacific - School of Engineering and Computer Science Stockton, CA 08/2023 - 12/2023

Teaching Assistant | Data Structures and Algorithms, C++

- Designed and graded coursework, hosted weekly office hours and exam reviews, instructed classes as a stand-in during the professor's absence, and supported **50+** students in mastering programming fundamentals.

Dr. Pallipuram's Research Lab - University of the Pacific Stockton, CA 01/2023 - Present

Research Assistant | Natural language processing, LLM, GPT-3.5 Turbo, Data mining, Recommender systems, Generative AI

- Developed an **NLP** framework leveraging GPT-3.5 Turbo for user review analysis and recommendation generation.
- Published as [first author](#) in Elsevier's Machine Learning with Applications, achieving **90%+** Bard-based user satisfaction.
- Conducted NLP text classification research, published findings to [book chapter](#) "Machine Learning in Educational Sciences".
- Developed a Virtual TA using **Sentence Transformer** and **Prompt Engineering**.

Grainger Electrical and Computer Engineering - Advanced Power Lab Champaign, IL 06/2021 - 05/2022

Research Assistant | BeagleBone Black, MQTT, TCP/IP, Java Graphics, Embedded Systems and Programming

- Engineered wireless MQTT-based communication with wind energy systems, enabling real-time control and data monitoring.
- Pioneered the lab's first graphical visualization system capable of displaying **10+** real-time signals with an emergency shutdown feature and customizable UI for enhanced system control and safety.

Illinois Office of Undergraduate Research & the Graduate College Champaign, IL 01/2021 - 06/2021

Research Apprentice | Computational Fluid Dynamics, Finite Element Analysis

- Optimized computational mesh structures for fluid simulations under the guidance of a Ph.D. candidate at the Hydrosystems Laboratory on a river dynamics and sediment transport project using CFD and Finite Element Analysis.

PROJECT

Senior Project: Freeze - Video Content Search Engine Stockton, CA 08/2024 - 12/2024

R&D Engineer | PySceneDetect, YOLOv8, PostgreSQL, Scene and Object detection, Video analysis, Search engine

- Developed a video content search engine using PySceneDetect and YOLOv8, enabling scene and object searches with thresholds.
- Optimized with Metal Performance Shaders to process 20-minute HD videos in under 3 minutes with high accuracy.
- Awarded the University's **Best Project of Fall 2024**, showcased at the university exhibition. [\[Project Showcase\]](#)