Ki-Pung (Kip) Park

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Education

California Baptist University Expected Apr. 2027
Bachelor of Computer Science, Machine Learning and Artificial Intelligence concentration
Minor: Christian Studies | GPA: 3.94 | Alpha Chi Honor Society

Research Interests

LLM architectures, vision-language-action models (VLAs), and physical AI.

Publications & Manuscripts

Published

Corso, A., Asariah, J. S., **Park, K.**, Corso, N. A., and Lee, E. (2025). *A DSR Approach for Geospatial AI: Prediction of Drug Overdoses.* Americas Conference on Information Systems (AMCIS). [Published paper]

Revised manuscript under review

Park, K., Bergquist, G., Lee, P., and Sanders, B. *Replicating Subliminal Learning in LLMs via Distillation and LoRA Fine-Tuning. Aletheia – The Alpha Chi Journal of Undergraduate Scholarship.*

Research Experience

LLM Fine-Tuning and Evaluation Feb. 2026–Present
CBU AI & Machine Learning Lab (CAIMLL) *Riverside, CA*

- Built an end-to-end pipeline that converts complex reference documents into source-verified training data, with checks for evidence coverage, answer quality, and reproducibility.
- Designed training examples that distinguish fully answerable, partially answerable, and unsupported questions, targeting models' ability to acknowledge knowledge gaps while answering supported parts.
- Developed distributed fine-tuning workflows for language models, supporting adapter and full-parameter training with reproducible experiments and automated data validation.
- Built controlled evaluations of model quality and audited synthetic data for wording and topic shortcuts that could let models predict answerability without learning evidence support.

Subliminal Learning in LLMs – Study Lead Aug. 2025–Present
California Baptist University *Riverside, CA*

- Led a controlled study comparing LoRA-induced and system-prompt-induced teacher preferences; generated filtered numerical sequences to fine-tune Llama 3.2 3B students with LoRA.
- Evaluated behavioral preference transfer; neither pipeline produced robust transfer under the tested conditions. Led the resulting manuscript through revision.

Hydrology – Statistical Rainfall Estimation Jan. 2026–Present
Research collaboration with Dr. Benjamin Sanders

- Modeled hourly rainfall transfer from CSUSB to Panorama Point using 1996–2024 gauge records and chronological evaluation.
- Evaluated event-calibrated lagged OLS: $R^2 = 0.58$ on held-out observed event hours (≥ 0.04 in/hr).
- Assessed totals, peaks, and timing across 17 storm windows; manuscript in preparation.

AI Researcher – Mechanistic Interpretability Jul.–Oct. 2025
Algoverse AI Research Program *Remote*

- Implemented JAX/Haiku transformer models for RASP-style algorithmic tasks and sparse-autoencoder pipelines to analyze attention and MLP representations.

Student Researcher – GeoAI for Public Health Mar. 2024–Sept. 2025
California Baptist University *Riverside, CA*

- Developed and trained a deep neural network using selected feature vectors from the project database to predict geographic areas of suspected drug-overdose risk; coauthored the AMCIS 2025 proceedings paper.

Research Experience (continued)

Undergraduate Research Assistant – Computational Physics May 2024–Aug. 2025
California Baptist University; Adviser: Dr. Hyung Choi *Riverside, CA*

- Developed modular, object-oriented simulations of gravitational lensing.
- Conducted parameterized experiments and built interactive visualizations to analyze multi-body lensing behavior.

Conference Presentations

SCCUR 2026 – Accepted Poster Presentations Nov. 21, 2026
San Diego State University.

- Towards Modeling Runoff and Flood Prediction over Unreliable Precipitation Gauges and Assessment of Potential Gauge Error. *First author.*
- Separate or Unified Fine-Tuning? A Systematic Comparison of Training Strategies for Multi-Document Domain Applications. *Second author.*

KSEA SWRC – Poster Presentations, CSU Fullerton Jan. 31, 2026

- Subliminal Learning in Large Language Models.
- A Design Science Research Approach for Geospatial AI: Predicting Drug Overdose Risk Using Social Media.

AMCIS 2025 – Paper Presentation Aug. 2025

- A DSR Approach for Geospatial AI: Prediction of Drug Overdoses. Montréal, Canada.

Professional Experience

AI Evaluation & Optimization Intern Jun.–Sept. 2026
Portfolio Elevation, LLC *Redlands, CA*

- Built a three-part evaluation program: black-box response benchmarks, a blind human photo-review workflow, and controlled vision-pipeline experiments.
- Identified incomplete responses, negation errors, truncation, and image-orientation failures using checked answer keys and repeated runs; documented recommendations.

AI Engineering Intern Jan. 2025–Present
California Baptist University – Student Success / Career Center *Riverside, CA*

- Developed LLM-assisted email drafting piloted with 3–4 advisors and a Whisper-based transcription prototype with projected annual savings of $6K+.
- Built a Neo4j/LangChain academic-planning prototype and authenticated student/staff scheduling applications.

Leadership, Teaching & Recognition

President, CBU ACM Mar. 2024–Present
Founded the Software Engineering Team; coordinated and mentored 20+ developers.

Software Engineering Tutor, CBU Aug. 2024–Present
Supported approximately 90 students in Java, data structures, debugging, and object-oriented design.

3rd Place – Cactus × Google DeepMind Hackathon Feb. 2026
Online division, FunctionGemma Hackathon.

Alpha Chi Gaston/Nolle Scholarship – CBU Nominee
Selected by CBU for national scholarship consideration.

Technical Skills

Languages: Python, Java, C++, JavaScript
ML frameworks: PyTorch, JAX/Haiku, TransformerLens, Unsloth
Methods: Sparse autoencoders, LoRA/QLoRA, model evaluation, synthetic data generation
Local inference: GGUF, Ollama, vLLM
Applications & tools: FastAPI, LangChain, Neo4j, PostgreSQL, Docker, Git