DAVID PARK

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EDUCATION

Washington University in St. Louis

Candidate for Bachelor of Science, Computer Science and Math, May 2026 GPA 3.99/4.0

Selected Coursework: Data Structures and Algorithms, Probability and Statistics for Engineering, Rapid Prototype Development and Creative Programming, Introduction to System Software, Algorithms for Nonlinear Optimization, Linear Algebra, Introduction to Analysis, Introduction to Machine Learning, Deep Reinforcement Learning, CUDA Programming, Operation Systems Organization

Awards:

Dean's List (Fall 2022, 2023, Spring 2023), Antionette Frances Dames Award (Spring 2024), Outstanding Sophomore Award (Spring 2024), Summer Undergraduate Research Award Winner (Summer 2024)

PUBLICATIONS

* Equal Contribution

• (2025) **SteeringSafety: A Systematic Safety Evaluation Framework of Representation Steering in LLMs:** Vincent Siu*, Nicholas Crispino*, **David Park**, Nathan W. Henry, Zhun Wang, Yang Liu, Dawn Song, Chenguang Wang. Workshop on Socially Responsible and Trustworthy Foundation Models at NeurIPS 2025.

• (2025) **Predicting Task Performance with Context-aware Scaling Laws:** Kyle Montgomery*, **David Park***, Jianhong Tu, Michael Bendersky, Beliz Gunel, Dawn Song, Chenguang Wang. Knowledgeable Foundation Models Workshop at ACL 2025.

WORK EXPERIENCE

Undergraduate Teaching Assistant

Washington University in St. Louis, August 2023 – Present

- Worked with other undergraduates to tutor Data Structures and Algorithms, Systems Programming, and Introduction to Machine Learning
- Advised 60+ students in weekly material during studio sessions
- Hosted 6 hours of office hours a week to break down complex topics and incentivize collaboration
- Proctored and graded exams and lab reports

Security Software Engineering Intern

MITRE, Los Angeles, CA, June-August 2020

- Developed software to improve computer security by simulating and circumventing infiltrations (40 hours/week)
- Researched key system vulnerabilities and their countermeasures
- Deployed a library of USB vulnerabilities to the signature ATT&CK Framework
- Worked with Senior Software Engineers to modernize and streamline code to industry standards

RESEARCH

Undergraduate Research Assistant

Washington University in St. Louis, June 2025 – Present.

- Research parallel programming algorithms at WashU's Parallel Computing Group.
- Developed a near-zero spawn overhead top-down work stealing algorithm for the CILK programming language to reduce work steal time

Undergraduate Research Assistant

Washington University in St. Louis, January 2025 – Present

- Research deep reinforcement learning with WashU's Machine Intelligence Group alongside PhD and master's students
- Adapted the MuZero model to a multi-agent environment and utilized JAX and C++ to optimize model training
- Helped to develop novel planning algorithm to replace inefficient MCTS algorithm, reducing the total training time to a third of the original

Undergraduate Research Assistant

Washington University in St. Louis, August 2023 – December 2025

- Researched natural language processing with WashU's NLP Group alongside PhD and master's students
- Met weekly to analyze latest advances in NLP technology and discuss their integration into current projects
- Conducted experiments on large language models to determine how performance scales with long context tasks
- Constructed a custom framework to assess the effectiveness of different representation steering methods for LLMs and to identify entanglement between different safety directions

SKILLS

Programming Languages: Java, Python, C, SQL, JavaScript, Lua, PHP, Intel x86, R
Libraries: Pandas, JAX, TensorFlow, Keras, PyTorch, XGBoost, Matplotlib
Tools: Linux, Bash, GDB, LaTeX, Neovim

LEADERSHIP

Association of Computing Machinery Public Relations

Washington University in St. Louis, August 2023 – Present

- Design flyers and social media posts to gather interest in club events
- Work with event coordinators to host recruiting events, information sessions, and workshops
- Took photos to publicize on official ACM website
- Helped to write blogs on recent ACM activities