

Kiet (Paul) Pham

608-895-1106 | paulpham.kiet@gmail.com | [linkedin.com/in/kietphamvt](https://www.linkedin.com/in/kietphamvt) | github.com/kietphamvt

EXPERIENCE

Software Engineer

June 2026 – Present

Google

Madison, WI

- Incoming SWE on **Rapid Cache** (distributed flash cache backend) supporting high-performance storage and AI workloads on Google Cloud.

Undergraduate Research Assistant

February 2025 – May 2026

University of Wisconsin - Madison

Madison, WI

- Regularly analyzed papers on tiered memory and ML systems to inform system design.
- Automated workload startup, memory and runtime metrics extraction, and time-series memory traces collection via Bash scripts, reducing manual processing time by 20%.
- Detected and debugged concurrency issues, including semaphore misuse and deadlocks, to ensure correct and efficient system execution.
- Engineered features from time-series memory traces for predictive modelling through boosted tree models, improving current model performance by 60% over initial baselines with negligible runtime overhead.
- Collaborated in an Agile-like environment, using Slack for daily updates and delivering actionable insights to minimize recurring errors.

Undergraduate Teaching Assistant (Peer Mentor)

January 2024 – May 2026

University of Wisconsin - Madison

Madison, WI

- Held office hours and helped 40+ students weekly in **Operating System** (system calls, concurrency, memory management, file systems) and **Python** (OOP, graph, Git, basic ML), reinforcing best practices in systems and software development.
- Debugged and optimized student code, resolving 80–90% of complex issues in OS projects and data science assignments.

EDUCATION

University of Wisconsin - Madison

Bachelor of Science in Computer Sciences & Data Science

GPA: 4.0

Relevant Courses: Operating Systems, Distributed Systems, Big Data Systems, Artificial Intelligence, Database Management System, Honors Algorithm, High Performance Computing

Awards: ICPC - North Central North America 2022 - **Silver Medal**; Dean List (All Semesters)

PROJECTS

Atlatl Advisers | *ReactJS, JavaScript, NextJS, Typescript, Tailwind CSS* September 2025 - December 2025

- Redesigned and implemented the company website using **Next.js** and **Tailwind**, delivering a modern, responsive frontend architecture for the **Atlatl Advisers** company.
- Implemented a **Strapi-based CMS backend** to enable non-developers to manage and update site content without engineering intervention.
- Built a **Retrieval-Augmented Generation** chatbot using **Vercel AI SDK** and **Google Gemini** to enable company-specific questions.

MiniShell | *C, Linux, Bash*

October 2024

- Implemented a custom Linux shell in C using POSIX system calls (**fork**, **wait**, **exec**), supporting process creation, job control, pipelines, variable substitution, local variable management, and I/O redirection.
- Optimized for performance, running 1000 commands (history, local) in 6 seconds with low memory overhead (150 MB RSS).
- Ensured correctness and memory safety using **gdb**, **Valgrind**, and **AddressSanitizer**.

TECHNICAL SKILLS

Languages: C/C++, Python, Java, HTML/CSS, JavaScript, SQL, Bash, Go

Frameworks: React, Flask, JUnit, JavaFX, PostgreSQL, PyTorch, PySpark

Developer Tools: Git, Docker, Google Cloud Platform, VS Code, Linux Shell, WSL