Pete Pongpeauk

+1 (571) 596-2255 | pete@ppkl.dev | linkedin.com/in/pete-pongpeauk | github.com/ppongpeauk | U.S. Citizen

EDUCATION

George Mason University   Fairfax, VA
B.S. Computer Science   *Expected May 2027*

EXPERIENCE

Circlez   October 2024 - Present
Software Engineer   *Williamstown, NJ (Remote)*
- Developing and maintaining the core product: a performance tracking tool for the manufacturing industry.
- Designed and implemented system architecture to ensure scalability, reliability, and security.
- Led the migration from MongoDB to PostgreSQL, achieving a 25% performance improvement, and migrated front/backend to edge infrastructure on Cloudflare, reducing average latency by 70% and cutting costs.

Unitrade   April 2023 – Present
Self-Employed   *Remote*
- Developed a comprehensive full-stack e-commerce application using React Native, PostgreSQL, and Redis to facilitate buying and selling within college campuses.
- Responsible for managing product design, development, marketing, and finances.

Johns Hopkins University Applied Physics Laboratory   June 2021 – April 2022
Software Developer Intern   *Laurel, MD (Remote)*
- Researched and developed artificial intelligence systems leveraging historical weather and satellite imagery data to predict disease outbreaks in third-world countries ahead of time.
- Actively collaborated with a dynamic team of three to parse large datasets and train a deep neural network using the TensorFlow library.

PROJECTS

XCS - Building Access Control Dashboard   August 2021 – Present
- Developed a dockerized full-stack application using React, PostgreSQL, and Redis to enable discretionary access control configuration for card readers within the Roblox game platform.
- Designed and implemented a RESTful API, handling over 25 distinct endpoints, 25+ data models, and 50,000+ requests per day. Serving over 50 monthly active users from closed beta rollout.
- Used in-memory caching to reduce database load and improve response times by 70%.

Murality - HooHacks 2024   March 2024
- Collaborated with a team of four to develop a website using React, MongoDB, and Java Spring that provides users an infinite 2D canvas to create and organize photo memories.
- Implemented a large language model to automatically categorize uploaded photos into labeled albums.
- Top 10, and 2nd place for Best Art and Gaming project at HooHacks, a hackathon at the University of Virginia.

Emotion Encoder   February 2024 – Present
- Developed a Python application using Google MediaPipe, PyGui, and TensorFlow to create a simulated LED matrix visualizer mapped onto 3D-printed masks.
- Trained a convolutional neural network (CNN) model to predict a person's emotions from video input and map them to LED outputs.

ACTIVITIES

GMU Computer Science Club   August 2023 – Present
Officer, Software Developer
- Spearheaded the development of a check-in web application within a one-week timeframe for HackFax, the club's flagship coding hackathon, enhancing efficiency and participant experience.
- Independently designed, developed, and deployed the application with Amazon Web Services.
- Achieved a milestone of approximately 300 active users during the event's three-day duration.

GMU Association for Computing Machinery (ACM)   January 2023 – Present
Member
- Collaborated with peers to tackle competitive programming challenges and dynamic projects, fostering teamwork and problem-solving.

SKILLS

Languages: Python, Java, C++, C, JavaScript, Lua, SQL
Libraries: Redis, PostgreSQL, MongoDB, Node.js, React, React Native, Spring, Django, TensorFlow
Tools: Linux, Git/GitHub/GitLab, CI/CD, Docker, Amazon Web Services, Google Cloud Platform, Cloudflare, Figma