Nathan Nguyen

(859)-866-1826 | Nathanpn2003@gmail.com | linkedin.com/in/nathanpng | github.com/Nathann03

EDUCATION

University of Cincinnati (GPA: 3.97/4)　　　　　　　　　　　　　　　　　Cincinnati, OH
Bachelor of Science in Computer Science　　　　　　　　　　　　　　　　*Expected May 2026*
- Relevant Coursework: Database Design, Design and Analysis of Algorithms,
  User Interface Design, Human Computer Interaction, Operating Systems, Linear Algebra

EXPERIENCE

Software Engineer Intern　　　　　　　　　　　　　　　　　　　　Jun 2025 – Aug 2025
Capital One　　　　　　　　　　　　　　　　　　　　　　　　　　　　*Chicago, IL*
- Engineered a full-stack platform to track the lifecycle of payments by consolidating disjointed real-time data from Snowflake and AWS S3 into a single source of truth via a GraphQL API layer built in Python with Flask.
- Reduced backend API latency from **650ms to 3ms** by creating a multi-layered Redis caching solution through AWS ElastiCache, implementing a block prefetching strategy accelerating data retrieval.

Machine Learning Engineer Intern　　　　　　　　　　　　　　　　Jan 2025 – May 2025
84.51˚　　　　　　　　　　　　　　　　　　　　　　　　　　　　*Cincinnati, OH*
- Created a reusable, scalable BERT embeddings science pattern using Spark UDFs in Databricks, with optional on-prem NVIDIA Triton model hosting, executing 110% faster than existing solutions.
- Designed an end-to-end **Agentic AI** system using Microsoft AutoGen to autonomously extract, classify, and normalize event data near store locations, storing over 1,000 events in Delta Tables for downstream ML use.

Software Engineer Intern　　　　　　　　　　　　　　　　　　　　May 2024 – Aug 2024
84.51˚　　　　　　　　　　　　　　　　　　　　　　　　　　　　　*Chicago, IL*
- Enabled advertisers to target specified Kroger shoppers in ad campaigns using Angular.js and Spring Boot.
- Refactored our backend to a microservice architecture, streamlining audience targeting speed by 40%.
- Optimized our MongoDB databases using Terraform, by implementing load balancing and scaling up backend instances to accommodate an expected 650% increase in user traffic, **increasing our uptime by 60%**.

Software Engineer Intern　　　　　　　　　　　　　　　　　　　　Jan 2023 – Dec 2023
84.51˚　　　　　　　　　　　　　　　　　　　　　　　　　　　　*Cincinnati, OH*
- Created a composable Orchestration API microservice used by 8 teams to deploy passed-in Docker images to Kubernetes clusters, improving deployment efficiency by 20%.
- Architected a ETL Azure Pipeline Monitoring tool, reducing daily on-call error resolution time by 4 hours.

COMMUNITY & LEADERSHIP

President　　　　　　　　　　　　　　　　　　　　　　　　　　　Aug 2021 – Present
UC CubeCats　　　　　　　　　　　　　　　　　　　　　　　　　*Cincinnati, OH*
- Led a 45+ member team on **NASA** sponsored LEOPARDSat, managing satellite design, testing, and launching.
- Created CATiSE, a hands-on training program that taught **150+ students** to systems design and leadership.

PROJECTS

LEOPARD-Sat | *C, PostgreSQL, Docker, Python, REST, Cron, Proxmox, FSK*　　　Jun 2022 – Present
- Designed a secure on-prem ground station to receive and sort satellite data into a PostgreSQL Database.
- Developed an authenticated REST API, integrated with cron-based TLE polling, to trigger pass-based data collection, pulling over **10M+ rows** for accurate satellite simulation and real-time monitoring.

Avarice | *C#, Unity, PostgreSQL, Project Management*　　　　　　　　　　Jan 2024 – Present
- Created a 2D medieval game with exploration and town managing, exploring themes of ambition and consequence.
- Implemented core gameplay systems such as AI Behavior systems, combat, and inventory using C# and Unity.

TECHNICAL SKILLS

Languages: Python, C++, JavaScript, SQL, Java, C#, HTML/CSS, YAML, MatLab, Bash, Haskell, Prolog, Golang
Technologies: Azure, AWS, Angular, Git, Spring Boot, Kubernetes, MongoDB, React.js, Redis, Kafka, Helm, Spark
Concepts: System Design, Cloud Architecture, Linux, Full-stack, Backend, Frontend, Unit Testing, Human Computer Interaction, NLP, Game Development, Data Engineering, Distributed Computing, Databases, Statistics