JUHUN PARK

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EDUCATION

George Mason University Expected May 2027

Bachelor of Science in Computer Science *GPA: 4.0*

- **Relevant Coursework:** Data Structures, Low-level Programming, Computer Systems and Programming
- **Honors:** $20,000 Merit Scholarship Recipient
- **Teaching Assistant:** CS 310 – Data Structures

EXPERIENCE

Google Developer Groups Aug 2025 – Present

Lead Developer, George Mason University *Fairfax, VA*

- Architected a course scheduler with Go and PostgreSQL to ingest and manage 10,000+ university course sections.
- Integrated backtracking algorithm to solve the constraint satisfaction problem, generating conflict-free timetables.
- Engineered a data pipeline using Python and GitHub Actions to automatically scrape course catalog with 99.9% accuracy

Northwestern University Jun 2025 – Aug 2025

Software Engineer Intern *Evanston, IL*

- Built an alumni networking platform with SvelteKit and ASP.NET, serving 150 users with 99.9% uptime on Cloudflare.
- Designed a PostgreSQL schema, optimized indexes, SQL functions on Supabase achieving p99 sub-5ms query latency.
- Configured a multi-tier caching strategy using Cloudflare CDN and a Redis cache, offloading 95% of read requests.

PROJECTS

Echo: Distributed LLM Gateway & Semantic Cache | GitHub | calple.date

Go, Next.js, Firestore, Docker, GCP Cloud Run

- Architected an AI gateway in Go that reduces LLM inference costs through semantic deduplication & request routing.
- Engineered an embedding pipeline using Transformers.js, offloading vector generation to the client, eliminatating server-side bottlenecks.
- Designed a synchronization protocol using AWS S3 and goroutines, enabling load-balanced instances to share a vector database cluster.
- Solved data leakage and stale context issues by implementing vector partitioning and semantic-complexity routing.

Sequential: Telemetry Analytics | GitHub

Go, WebSockets, Docker, OCI (ARM64), Windows API (Shared Memory)

- Engineered a high-performance telemetry pipeline in Go to ingest real-time physics data via zero-copy shared memory.
- Architected a concurrent distribution system with WebSockets & Go routines, achieving sub-10ms states synchronization.
- Optimized network efficiency with client-side batching and data aggregation, maintaining zero operational costs.

Revive.fyi: Tech Career Platform | GitHub | copium.dev

Go, TypeScript, SvelteKit, PostgreSQL, Algolia, GCP, AWS, Cloudflare

- Launched an internship management platform with SvelteKit and PostgreSQL, processing 2000+ weekly applications.
- Delivered an 80% reduction in query latency for BigQuery analytics by leveraging CQRS architecture.
- Migrated media storage to Cloudflare R2, architecting a zero-egress pipeline without incurring AWS data transfer fees.
- Implemented fault-tolerant compensating transactions for consistency across 3 data stores with automated retries.

TECHNICAL SKILLS

- **Languages:** Python, TypeScript, JavaScript, Go, Java, SQL, C, C#
- **Frameworks:** React, Django, Flask, Next.js, SvelteKit, FastAPI, .NET, Node.js
- **Tools & Platforms:** Git, Docker, AWS, GCP, Vercel, Cloudflare, Linux, PostgreSQL, Redis, Kafka, RabbitMQ