OMER KHAN

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EDUCATION

B.S in Software Engineering, University of Texas at Arlington *May 2025*

- **Coursework:** Data Structures and Algorithms, Databases, Operating Systems, Linear Algebra w/Computational Applications, Linux Programming, Parallel Computing, Computer Networks, Computer Security.

EXPERIENCE

Software Engineer, **Paycom** · *Irving, TX* *July 2025 – Present*

- Improved system observability across the 401(k) provider sync infrastructure by integrating structured logging, error classification, and automated failure alerting into the file ingestion pipeline, reducing mean time to resolution for provider errors by 35%
- Built scalable PHP-based ingestion services to process and validate millions of 401(k) contribution records annually, ensuring accurate payroll deductions for thousands of employees across multiple providers such as Fidelity, Empower, BOK, Voya and Principal.
- Enhanced database performance by 12% by implementing TTL-based caching for MySQL queries, reducing redundant account queries.
- Designed fault-tolerant PHP retry mechanisms and idempotent processing for payroll imports, ensuring consistency during peak loads.
- Broadened retirement plan coverage by extending the auto-assignment engine with support for additional deduction code types including 403(b) and 457(b), enabling accurate automatic mapping to employee deduction accounts for a wider range of client plans.
- Served as the technical point of contact for onboarding 5+ retirement providers, leading cross-company discussions to clarify file format specifications, agree on data contracts, and ensure provider outputs aligned with Paycom's ingestion and payroll sync requirements.

Software Engineering Intern, **Farmers Insurance Group** · *Garland, TX* *May 2024 – Aug 2024*

- Improved insurance claims data quality by 30% by implementing real-time error-checking and automated cross-referencing of incoming claims against policy records using Java and SQL, significantly reducing manual review overhead and downstream processing errors.
- Optimized batch processing with Python & Apache Spark leading to an estimated 25% increase in throughput.
- Automated testing processes using Jest and Jenkins, reducing manual testing time and increasing test coverage by 50% through CI/CD and automated test execution.

Software Engineering Intern, **TSB Transportation Services** · *Mesquite, TX* *May 2023 – Aug 2023*

- Increased fleet operational efficiency by developing Java-based maintenance scheduling system that optimized 200+ vehicle maintenance cycles, providing an extra 50 hours of operational time per vehicle monthly and reducing emergency repairs by 35%.
- Reduced data processing time by 40% by optimizing Node.js/Express API endpoints and integrating Stripe and PayPal.
- Improved user satisfaction scores by 50% by translating Figma designs into React UI.

Software Engineering Intern, **Clinic and Spa** · *Plano, TX* *May 2022 – Aug 2022*

- Built a patient registration system using Java, reducing registration times by 25% and improved patient throughput from 100-150.
- Optimized clinical data analysis by 15% through API integration and SQL queries, enabling faster, accurate patient assessments.
- Wrote Python scripts to automate repetitive data entry tasks, reducing manual effort by 60% and saving 15 hours per week for staff.

PROJECTS

Distributed File System (GoDFS) — Go, React

- Designed distributed file system in Go with replication + failover, optimizing for consistency and fault tolerance across nodes.
- Integrated gRPC/protobuf for node communication, improving system throughput by 40% while ensuring scalability.
- Developed an interactive file management dashboard, enhancing user accessibility to file operations by integrating a React-based UI with GoDFS's gRPC APIs using TypeScript and REST endpoints.

API Gateway and Authentication Service — Node.js, Java, OAuth2, Docker

- Developed an API gateway in Node.js with routing, rate-limiting, and load-balancing features, reducing request latency by 25%.
- Implemented a Java-based authentication service with OAuth2 and JWT token management, securing multi-service communication.
- Integrated centralized logging and monitoring with the ELK stack, improving debugging and system observability.

TECHNICAL SKILLS

Languages: Java, Python, PHP, Go, C/C++, SQL, TypeScript, HTML/CSS, Bash
Technologies/Tools: Git, Linux, Docker, Kubernetes, AWS, Spring Boot, Kafka, Apache Airflow, Jest, Jenkins, JUnit, MySQL, PostgreSQL, Redis, React, Node.js, Express.js, Pandas, OAuth, NumPy, Postman, REST APIs, CUDA, ElasticSearch
Concepts: Software Engineering, Distributed Systems, Back-end Systems, Agile