Michael Yi

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EDUCATION

Georgia Institute of Technology   Aug. 2025 – May 2027
Master of Science in Computer Science, Specialization: Computing Systems   *Atlanta, GA*

Georgia Institute of Technology   Aug. 2023 – May 2026
Bachelor of Science in Computer Science (GPA: 4.0/4.0)   *Atlanta, GA*
- **Concentrations:** Systems Architecture and Information/Networking
- **Courses:** Data Structures, Algorithms, Operating Systems, Networking, Computer Architecture, Databases

EXPERIENCE

Software Engineer Intern   Jun. 2025 – Aug. 2025
Capital One   *McLean, VA*
- Validated backward compatibility of 2.5k Avro schemas for banking, cards, loans to prevent transaction corruption
- Eliminated manual overhead of 5 internal tools by merging duplicate business logic into a Java/AWS REST API
- Streamlined deploys by establishing 90% test coverage and a 12-stage CI/CD pipeline by using JUnit and Jenkins

Software Engineer Intern   May 2024 – Aug. 2024
T-Mobile   *Overland Park, KS*
- Decoupled 8 microservices by deploying an event-driven framework (Java/Spring/Kafka) to improve modularity
- Saved $400k/yr by creating Pub/Sub APIs to migrate 95% of company metadata from legacy catalog (0 downtime)
- Enabled adoption in 3-yr roadmap by delivering 20-page docs and 24/7 dashboard monitoring 5k+ Kafka msgs/sec

LEADERSHIP

Undergraduate Teaching Assistant   Jan. 2025 – Present
Georgia Tech College of Computing   *Atlanta, GA*
- Taught 1,300+ students in CS 2110: Computer Architecture by leading 200+ hours of labs and office hours
- Improved student forum response time to 15 minutes by answering 330 questions, ranking top 3 out of 40 TAs
- Authored and graded 14 problem sets, 14 exams, and 5 projects to assess mastery of CPU design, Assembly, C

Engineering Manager   Jan. 2025 – Present
Georgia Tech Bits of Good   *Atlanta, GA*
- Built a medication logging game for an Atlanta nonprofit, earning 100% positive beta feedback from K-12 patients
- Led a team of 5 developers by authoring 50+ tickets and reviewing 500+ commits across 5 Agile sprints
- Collaborated with 4 stakeholders to plan 15 sprints across 3 semesters to develop MVP with Next.js and MongoDB

PROJECTS

Operating System Kernel | *C, Unix, GDB*   Jan. 2025 – Apr. 2025
- Implemented virtual memory and paging with FIFO/LRU eviction (40% page fault decrease vs. random eviction)
- Wrote a CPU scheduler with FCFS, Round-Robin, Priority, SRTF algorithms to achieve avg. wait time of 160 ms
- Engineered a TCP-based transport protocol with packets, checksums, ACKs/NACKs to sustain 80% packet loss

Invoice Generator | *Java, Spring, gRPC, Kafka, SQL, Redis, AWS, React*   Apr. 2024 – Jun. 2024
- Deployed a platform for a logistics firm that auto-generates invoices and pivot tables from 50+ Excel sheets/week
- Reduced average manual work time from 2 hours to 5 minutes and stored 450k+ rows of sales and inventory data
- Scaled to 25k+ requests/hr by building a GraphQL API gateway with caching, load balancing, and JWT security

1st Place Overall, Georgia Tech Hackathon (ScribeAI) | *Java, Spring, SQL, Kubernetes, React*   Oct. 2023
- Won 1st place out of 1,500+ participants at HackGT X, the largest hackathon in Southeast, as a college freshman
- Prototyped a HIPAA-compliant platform that converts scanned medical files into encrypted electronic records
- Delivered end-to-end reliability by leveraging microservices, federated databases, and decentralized encryption

SKILLS

Languages: Java, Python, Go, C++, C, SQL, C#, JavaScript, TypeScript
Frameworks: Spring, Kafka, gRPC, GraphQL, Django, Flask, .NET, Node.js, React, JUnit, Mockito
Tools: Git, AWS, Docker, Kubernetes, Unix, Linux, MySQL, PostgreSQL, MongoDB, Redis, Jenkins, GDB