

Bharat Khadka

513-410-8060 | BharatKh2468@gmail.com | [LinkedIn/Bharat-Khadka](https://www.linkedin.com/in/Bharat-Khadka) | [GitHub/Bharat1298](https://github.com/Bharat1298)

Education

Georgia Institute of Technology

Bachelor of Science in Computer Science

May 2027

Atlanta, Georgia

Experience

Meta | *Internship*

May 2025 – Aug 2025

Software Engineer

Bellevue, Washington

- Simplified Business Verification for over 1.6M monthly users across FaceBook, Instagram, and WhatsApp, increasing verification sharing rates by 7% and success rates by 5.2%, by storing data in a more efficient structure and allowing users to reuse previously verified details
- Reduced query time for User Accounts from >30s to 1s, leading to a 18.7% reduction in CPU cycles, by creating and optimizing sharing configurations using PHP, GraphQL, SQL, and React
- Migrated legacy routing, lowering latency and internal queries by 27.3%, by improving branching/challenge selection
- Optimized debugging efforts by 500%, allowing users to easily test and dogfood their features, by creating a tool to render a visual graph of challenge/branch flow using Hack, GraphQL, and React
- Improved maintainability processes, resolving 20+ tasks, by working with XFN teams to simplify 7000+ lines of code

Kroger Technology & Digital | *Internship*

May 2024 – Aug 2024

Software Engineer

Blue Ash, Ohio

- Reduced End-to-End testing time from 40 hours to 5 hours, enabling code to be deployed 87.5% faster by automating processes with Selenium WebDriver and IntelliQA robots
- Increased automated test coverage by 10%, resolving 16 Jira tickets and increasing sprint velocity by 36%, by using Agile practices to develop 20+ scripts with Java, Maven, TestNG, and Selenium
- Lowered manual testing efforts by 40%, enabling 15% faster milestone completion, by creating 7 API methods using Postman to simulate credit and debit card transactions

Projects

CatScan | *Facial Recognition and Characteristic Identification*

Nov 2023 – Present

- Engineered a recognition system for accurate analysis of facial features with OpenCV and C++
- Amplified model detection and accuracy by 80% by utilizing PyTorch and TensorFlow
- Crafted an application to manage databases of recognized faces using PostgreSQL, JavaScript, and Node.js

LC-3200 | *Multithreaded CPU Scheduler*

Apr 2025

- Created scheduling algorithms, implementing FCFS, RR, and SRTF, to reduce wait times by 25% across 4 CPUs
- Reduced page faults by up to 40% and AMAT by up to 17000 clock cycles, improving performance on algorithms such as A*, MCF, and Perlbench, using C to implement FIFO, Approximate LRU, and Random Page Replacement,
- Created a ready-queue management system, eliminating race-conditions by 100% and guaranteeing correct queuing behavior, by using C++ to implement pthreads, conditional variables, and mutexes
- Designed a CLI for algorithm selection, capable of tuning parameters such as CPU Count, Timeslice, and age weight, allowing rapid benchmarking across workloads

LC-2200 | *Von-Neumann Virtual Machine*

Feb 2025

- Constructed a fully functional datapath from scratch, capable of handling I/O, Interrupts, complex functions and 17 instructions, using CircuitSim, Assembly, and C
- Functionalized Virtual Memory, allowing datapaths to operate using 32-bit address space and memory, by using C to implement demand paging, virtual-to-physical address translation, and page table management
- Optimized I/O by 40%, enabling faster processing across threads, using dirty page tracking and write-back mechanisms

Sense | *Mental Health Monitoring and Early Symptom Detection*

Sep 2024

- Developed a platform to detect mental health conditions with 85% accuracy using React and TypeScript
- Increased site interactivity by 250% by designing and integrating algorithms to analyze user information using Next.js, TailwindCSS, OpenCV, Python, and FastAPI
- Improved personalization by 300% by implementing a Chatbot and Hospital Locator using OpenAI and MapBox APIs
- Deployed secure storage to manage videos and user data with Auth0, MongoDB, and AWS S3

Leadership And Community Engagement

FIRST Robotics Competition | *Lead Programmer*

Jan 2021 – May 2024

- Led a team of 55 to design and develop 4 robots within 6 weeks, securing 4th place in 7 regional competitions, 6th place in world championships, and winning 7 awards for excellence
- Trained 120 recruits in controls engineering and design, developing their skills with CAD, electronics, and programming

Skills

Languages: Python, Java, PHP, C, JavaScript, TypeScript, C++, SQL, C#, Lua, HTML/CSS

Frameworks: React, Next.js, Flask, Node.js, TailwindCSS, Express, FastAPI, Django, Three.js, Bootstrap

Tools: Git, GitHub Actions, MongoDB, AWS S3, OpenCV, PyTorch, TensorFlow, Postman, Selenium, Linux