# Laksh Makhija

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## EDUCATION

**Georgia Institute of Technology**, Atlanta, GA                                                       Dec 2026
*Bachelor of Science in Computer Science (Concentrating in Intelligence and Systems & Architecture)*
**Coursework:** Data Structures & Algorithms, Linear Algebra, Systems & Networks, Perception & Robotics, Artificial Intelligence, Operating Systems, Embedded Systems, Natural Language Processing, Machine Learning
**Cumulative GPA:** 4.0/4.0

## SKILLS

**Programming:**  Java, JavaScript, Python, HTML, CSS, SQL, noSQL, PHP, Dart, C, Assembly, Rust, C++, GraphQL, TypeScript
**Frameworks:**  React, React Native, Django, NodeJS, MongoDB, RESTAPI, SocketIO, Redux, Angular, Spring Boot, Flutter
**Tools:**  PostgresSQL, Firebase, Firestore cloud storage, Azure, Docker, Git, MySQL, TensorFlow, Pytorch, LLMs

## WORK EXPERIENCE

**Meta Platforms**, Menlo Park, CA  |  *Software Engineer Intern*                          May 2025 – Aug 2025
- Revamped the debugging pipeline for Meta's business insight generation model, **reducing redundant business recommendations** by **15%** and contributing to a **~$22.5M revenue increase**
- Enhanced filtering of model outputs by addressing edge cases and refining delivery logic, resulting in a **40% increase in insight delivery accuracy** and **higher engagement** from businesses using Meta's business platforms
- Collaborated cross-functionally within the Monetization organization to **enhance personalized recommendations**, supporting thousands of businesses in acquiring customers more effectively through data-driven insights

**Macs-G**, Dubai, UAE  |  *Full Stack Web Developer & Flutter Developer*                   May 2024 – Aug 2024
- Integrated a **SaaS multi-tenant architecture** into an existing NodeJS + MySQL backend **improving querying time by 35%** and **strengthening data security by 53%**
- Led development of a Construction Management software using Flutter + MySQL with **room tracking via OCR** and providing a **seamless user experience** for inspections and submitting reports
- Developed a full-stack expense management platform with client & admin interfaces, integrating **cloud storage, OCR,** and **LLMs** to automate data extraction—**reducing manual processing time by 32%** and **preventing misuse by 40%**

**EmQube**, Dubai, UAE  |  *Software Tester & Mobile App Developer*                         June 2023 – Aug 2023
- Tested the in-development Facility Management Software (CAFM Pro) and made **40+ fixes using Angular**
- Developed a React Native cross-platform mobile application to offer on-demand services, enhancing the accessibility of the existing system by adding a mobile client alongside the server and web clients, resulting in a **20% increase** in **facility management companies' satisfaction** and **willingness to adopt the product**

## TECHNICAL PROJECTS

**Smart Energy Anomaly Detection**, Atlanta, GA                                         Aug 2025 – Present
- Built an **AI-powered IoT system** for Georgia Tech's Kendeda Building to **optimize energy usage** by analyzing over **10M** readings from **50+ sensors**, integrating weather and occupancy data to **detect anomalies** using **Z-score & Isolation Forest**
- Developed an API-driven dashboard for **real-time anomaly visualization** and **root-cause analysis**, **reducing manual inspection time by 65%** and **achieving 92% detection precision**, aiding campus-wide sustainability reporting.

**Safety Ambassadors Program**, Dubai, UAE                                              Apr 2021 – Nov 2022
- Collaborated with the Dubai Police to develop a web application using HTML, CSS, and Django to educate students (Gr 3-8) on digital safety through games and modules
- Implemented features including popups, carousels, points, and leaderboards to increase user interactivity
- Impacted **1500+ users** with an **80% improvement rate** observed through pre and post surveys

## LEADERSHIP AND COMMUNITY ENGAGEMENT

**Georgia Tech College of Computing**, Atlanta, GA  |  *Systems & Networks Teaching Assistant*     Aug 2025 – Present
- Tutor students in Computer Architecture (**RISC** vs **CISC**), **Assembly**, **Memory Hierarchy**, **Operating Systems**, **C Programming**, **Caching**, **Multithreading (pthreads)**, and Networking (**TCP/IP, Ethernet, Routing**)
- Host **weekly office hours**, **provided feedback** on student assignments, and **led lab sessions** with 50+ students

**Georgia Tech Vertically Integrated Program,** Atlanta, GA  |  *Researcher*                        Jan 2025 – Present
- Design and implement a shared Memory Management Unit in Rust to enable **secure communication protocols** between the high-security and low-security processors thus **ensuring the security and integrity** of the voting machine

**GT Web Dev**, Atlanta, GA  | *President & Project Manager*                              Aug 2023 – Present
- Spearheaded development of a multiplayer web-based Dungeons & Dragons game using **React** and **LLMs** to allow **dynamic role selection** along with **story and decisions generation**
- Enabled **real-time multiplayer** by creating live servers with **WebSocket (SocketIO)** and **NodeJS**
- Led a **hands-on bootcamp** covering the **MERN** stack, guiding participants through building and deploying a full-stack application