**Mahesh Kumar**

**Portfolio:** [***krmahi.github.io/portfolio-bento-ui***](https://krmahi.github.io/portfolio-bento-ui)  
 **Online Presence:** [***LinkedIn***](https://linkedin.com/in/mahikr)[***GitHub***](https://github.com/krmahi)[***Figma***](https://www.figma.com/@mahi3)[***Unstop: (Hackathons)***](https://unstop.com/u/mahi_kr__)

**SUMMARY**

**Aspiring Software Developer** with strong foundation in full-stack development, cloud computing, and real-time problem solving. Interned at **AWS** and **Trusted Wearables**, where I improved ML output accuracy by over **~20%** and built responsive smartwatch UIs that ran smooth on minimal resources, Proven performer in national-level tech competitions including **Flipkart GRiD 5.0**, **HackOn with Amazon**, **Tata Imagination Challenge** and **Xiaomi Ode2Code 3.0**

**WORK HISTORY**

**Trusted Wearables – Software Developer Intern**

*Delhi Ncr, India Feb 2024 – Apr 2024*

* Developed smartwatch and mobile apps using **Kotlin**, **Swift**, and **React** **Native**, improving device compatibility across iOS and Android platforms
* Designed embedded UIs using **LVGL** on resource-constrained hardware, **reducing frame drops** & improving **rendering efficiency by 25%**
* Optimized UI rendering bottlenecks and animation load, **improving load time efficiency** under memory-constrained environments

**AWS – Cloud Architecture Intern**

*Remote Sep 2023 – Nov 2023*

* Managed AWS **virtual machines** and optimized S3 storage using CLI and lifecycle policies, **reducing monthly cloud storage cost by 18%**
* Visualized large datasets using **BigQuery** and **Looker**, automating reporting pipelines and **reducing manual analysis time by 40%**
* Executed **Automated integration** and **regression tests** for cloud-deployed applications, identifying configuration-level issues

**PROJECTS**

**AI Drawing Calculator and Problem Solver |** [**Repo,**](https://github.com/krmahi/AI-Drawing-Calculator-and-Problem-Solver-) [**Live**](https://drawing-calc.vercel.app/)

* Developed a React-based canvas app to recognize **hand-drawn math problems** via LLM-powered API integration with **base64-encoded snapshots**
* Built a canvas-based UI with swatches and live rendering, **improving task completion time by 35% over traditional form input methods**
* Added **undo/redo functionality** and **pressure-sensitive**, increasing drawing precision and **reducing user correction time**

***Skills:*** *React.js, TypeScript, API, TailwindCSS, NLP, CNN, MathJax, Axios, Uvicorn*

**Autonomous Vehicle Navigation System (SenseDrive) |** [**Repo**](https://github.com/krmahi/SenseDrive)

* Built and tested simulation frameworks for **lidar**, **camera**, **INS**, **Sensor Fusion**  integrating **C++** modules in **Unreal Engine** to replicate real-time sensor inputs and signal processing patterns
* Developed traffic interaction logic using **Simulink**, **Stateflow**, Decision systems & verifying time sensitive transitions under urban drive test scenarios
* Contributed to research-grade simulation environment replicating realistic autonomous driving patterns for **academic** and **R&D applications**

***Skills:*** *Simulink, Stateflow, Unreal Engine, MATLAB, C++, Robotics*

**SecondLife – Cross-Platform Marketplace App |** [**Repo**](https://github.com/krmahi/SecondLife)

* Developed a mobile app for buying/selling second-hand items, integrating secureauth, image caching, push notifications, and real-time form validation
* **Achieved <2s average load time** and seamless user flows across 10+ tested Android/iOS devices, **improving usability by 35%**
* Built custom backend APIs in Node.js for item listing, JWT authentication, and secure user data handling

***Skills:*** *React Native, Expo, Node.js, JWT, SecureStorage, AsyncCache*

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**SKILLS**

* **Languages & Tools:**

Python, C++, JavaScript, TypeScript, MATLAB, GitHub, version control, CI/CD, Postman, Figma, Firebase CLI, Squareline Studio

* **Frameworks, Platforms & Libraries:**

React.js, React Native, Node.js, Expo, Express.js, Redux, Firebase, LVGL, AWS, FastAPI, Google Cloud, Looker, REST APIs, JWT Auth, TailwindCSS, Debugging, SDLC

* **AI, Data & System Technologies:**

Machine Learning, NLP, CNN, MongoDB, MySQL, OpenCV, UI/UX, Canvas API, State Management (Redux/hooks/Props), LLMs

* **Soft Skills:**

Leadership, Problem Solving, Collaboration, Communication, Time Management, Critical Thinking, Adaptability, Analytical Reasoning

**EDUCATION**

**Bachelor’s Computer science & engineering**

G.L. Bajaj Institute of Technology and Management, Delhi NCR

*Nov 2020 – Jul 2024 | CGPA:* ***8.23 / 10***

**Intermediate & High School - Science (PCM)**

Army Public School, India

Apr 2019 – Mar 2020 **XII** | Grade: **89%**

Apr 2017 – Mar 2018 **X** | Grade: **86.83%**

**CERTIFICATIONS**

* Cloud Architecture & Fundamentals – AWS Academy
* Google Cloud Arcade Facilitator – Google Cloud
* Data Structures & Algorithms in Python – Google
* Problem Solving – HackerRank
* Data Science Foundation – Infosys
* Certified C++ Developer – Coding Ninjas

**HACKATHONS**

* **Top 20 Finalist**, Xiaomi Ode2Code 3.0
* **Advanced to Level 2**, Flipkart GRiD 5.0 (Software Dev Track)
* Participated in **HackOn with Amazon**, **TVS Credit E.P.I.C 5.0 – IT Challenge**
* Other national-level challenges: Tata Crucible Quiz, Tata Imagination Challenge, Tally CodeBrewers, L’Oréal Sustainability Challenge, Namma Yatri Mobility Challenge