

Tarun Nayaka R

Bangalore, India • +91 7483997976 • r.tarunnayaka25042005@gmail.com

[linkedin.com/in/tarun-nayaka-r](https://www.linkedin.com/in/tarun-nayaka-r) • github.com/Rtarun3606k • ssh.dev.tarun.nayaka.cloud • tarun.nayaka.cloud

PROFESSIONAL SUMMARY

Systems Engineer and Azure Certified Developer (AZ-204) pivoting from web development to distributed systems and developer tooling. Experienced in building custom SSH servers in Go, zero-dependency parsers in Python, and non-blocking telemetry tools. Proven track record in Applied AI research (PESU Foundation) and Fintech API development.

TECHNICAL SKILLS

- Languages:** Go (Golang), Python, JavaScript/TypeScript, SQL, C++, Lua
- Systems & Cloud:** Microsoft Azure (Certified), GCP, AWS, Docker, Kubernetes, NGINX, Firebase, Linux/Bash.
- Core Engineering:** System Design, Microservices, REST APIs, CI/CD (GitHub Actions), TUI (Bubble Tea).
- AI/ML:** Generative AI (RAG Pipelines), PyTorch, Binary Neural Networks (BNN & DABNN), Model Optimization.

EXPERIENCE

Research Intern
PESU Research Foundation

June 2025 – July 2025
Bangalore, India

- Engineered** an end-to-end **Multilingual Crop Health System** using a microservices architecture to process aerial drone imagery for edge-based inference.
- Developed** a lightweight **Dual Attention Binary Neural Network (DABNN)** achieving **98.4% accuracy** with a highly optimized model size of **2.2 MB** (10x smaller than YOLO baselines).
- Implemented** a multimodal **Generative AI pipeline** (RAG + GPT-4) to synthesize classification results into actionable audio/text reports in 5 Indian languages.

Software Development Intern
Bluestock (Fintech)

Jan 2025 – April 2025
Remote

- Developed scalable, secure APIs using **Django REST Framework** to handle real-time financial data processing.
- Optimized database queries for **high-volume transactions** and implemented secure user authentication modules.
- Integrated** frontend interfaces with backend services, ensuring **low-latency** data delivery for trading dashboards.

KEY PROJECTS

MDParser (PyPI Library) [Github](#) | [PyPI Library](#)

Python, PyPI, Regex

- Designed** and **published** a zero-dependency Markdown-to-HTML parser library on PyPI (`pip install mdparser-html`).
- Refactored** initial Regex implementation to a custom **Abstract Syntax Tree (AST)** to handle complex nested structures and multi-line fenced code blocks.
- Implemented** state-machine logic for syntax highlighting and language tagging.

Taka-Time (Cross-Platform Telemetry Engine) [Github](#) | [VS Code Marketplace](#) | [JetBrains](#)

Go, Lua, JavaScript, SQLite

- Architected** a platform-agnostic telemetry engine powering **30+ editors** (including **VS Code, Neovim, and JetBrains IDEs**) across Windows, macOS, and Linux via a shared, cross-compiled Go backend with a **local SQLite** sync engine.
- Designed** a detached **"Singleton Messenger"** to offload heavy I/O (2–5s database syncs, global logging), guaranteeing **0ms editor latency** while maintaining a strict **18MB binary footprint** and **24MB peak RAM**.
- Scaled** the project to **4,000+ downloads** and **100+ GitHub stars**, becoming the **#1 trending project on r/neovim**.

SSH Terminal Portfolio [Github](#)

Go, Bubble Tea, Wish, Azure

- Built** a fully interactive, TUI-based portfolio accessible via SSH (`ssh dev.tarunnayaka.me`).
- Engineered** a custom SSH server using Go and the Wish library to serve dynamic content directly to the client's terminal.
- Implemented** custom ASCII streaming and secure key-based authentication modules.

Walkez - Smart Pedestrian Safety App [Github](#)

Google Developer Solution Challenge 2024

- Built a community-driven civic tech platform using **Generative AI** and Computer Vision to crowdsource street safety data.
- Engineered** a hybrid database architecture (Firebase + PostgreSQL) and integrated Azure Maps for dynamic geospatial visualization.

CERTIFICATIONS & LEADERSHIP

- Microsoft Certified:** Azure Developer Associate (AZ-204), Azure Data Fundamentals (DP-900), Azure Fundamentals (AZ-900), **Github Certified:** Github Fundamentals
- Social Winter of Code (2025):** Project Admin for WALKEZ. Led technical planning and contributor onboarding.
- Microsoft Learn Student Ambassador (Beta):** Organized cloud workshops for 400+ students.

EDUCATION

PES University
Bachelor of Technology in Computer Science & Engineering **CGPA: 7.67 (Current)**

Bangalore, India
Expected Graduation: 2027