

Frederick Punabantu

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Skills

- **AI & Data Center Technologies:** NVIDIA GB200/GB300 NVL72, Dell PowerEdge XE, NVLink, PCIe, OSFP, BMC, BIOS, GPU, NVLink firmware Linux, Bash, firmware validation, AI infrastructure testing
- **Programming Languages:** C++, C#, Python, TypeScript, HTML, CSS, SQL
- **Cloud & Infrastructure:** Kubernetes fundamentals, containerized workloads, Linux system internals, observability concepts
- **Frameworks & Tools:** Unity, Unreal Engine, Git, Visual Studio, Generative AI, Firebase, React Native
- **Embedded Systems:** Proficient in ARM architecture and development, assembly programming
- **Design:** Adobe Creative Cloud (Photoshop, Premiere Pro, After Effects), Blender, Figma, UI/UX design principles
- **Systems & Automation:** Linux, Python, Bash, infrastructure automation, log analysis, telemetry capture, firmware lifecycle management, reliability testing

Professional Experience

SMS Infocomm

Team Lead – AI Server Specialist

Sep 2025 - Current

Grapevine, Texas

- Lead validation, diagnostics, and stress testing of **NVIDIA GB200 and GB300 NVL72 AI server platforms**, supporting pre-release qualification and customer deployment readiness.
- Perform deep hardware and software debugging across **compute trays, accelerator nodes, NVLink fabrics, OSFP boards, PCIe subsystems, BMC, and firmware stacks** under sustained AI workloads.
- Collaborate directly with **Dell, NVIDIA, and Wistron engineering teams** to capture telemetry, analyze logs, and drive root cause analysis for issues spanning **thermal behavior, power delivery, signal integrity, and firmware mismatches**.
- Execute controlled **BIOS, BMC, GPU, and NVLink firmware flashing and validation**, ensuring alignment with NVIDIA release requirements and platform security baselines.
- Support AI infrastructure validation for hyperscale and enterprise customers including **xAI, CoreWeave, Oracle, SoftBank**, and others.
- Built and maintained Python and Bash based tooling to automate diagnostics workflows, parse test outputs, and surface failure trends across AI server fleets.
- Analyzed structured and unstructured logs to identify performance regressions and failure patterns, supporting scalable infrastructure validation.

University of North Texas

Student Assistant Librarian

Aug 2023 - May 2025

Denton, Texas

- Maintained and updated the library database for 44,000+ students, ensuring accessibility and accuracy.
- Delivered professional customer support at the service desk, achieving a 95% satisfaction rate.
- Collaborated with librarians to support research and academic needs, enhancing student engagement with library resources.
- Compiled and edited monthly analytical Excel reports on library query data for management review and strategic planning.

Projects

Nov 2019 - Dec 2021

Rune Routes App

Aug 2024 - May 2025

- Developed an interactive exploration map using React Native and Google Maps API, enhancing user navigation experience.
- Integrated real-time location tracking, providing users with updates on nearby attractions and optimizing user engagement.
- Utilized MongoDB to manage and store location data, enabling efficient querying and scalability.
- Participated in agile development processes, continuously iterating on features based on user feedback and sprint retrospectives.
- Designed backend data flows and API integrations with scalability and reliability considerations.

UNT Dining App

May 2024 - Aug 2024

- Co-developed a mobile app using React Native, incorporating Python scripting and Beautiful Soup to scrape and display UNT dining menu data.
- Collaborated with a cross-functional team to establish effective communication channels and streamline the development.
- Focused on front-end UI/UX design for both iOS and Android platforms, ensuring a seamless user experience across devices.

Education

University of North Texas

Bachelor of Science, Computer Science

May 2025

- **GPA:** 3.8