CHETAN KRISHNA PALICHERLA

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SUMMARY

Versatile Software Engineer with a 3+ years of strong foundation in **data-driven system design and AI-powered solutions**. Combines technical expertise across **full-stack development, machine learning, and cloud infrastructure** to deliver scalable enterprise solutions. Proven ability to **translate complex requirements into efficient architectures** while driving measurable business impact through **automation, optimization, and cross-functional collaboration**. Passionate about leveraging emerging technologies to solve real-world challenges in fast-paced, innovation-focused environments.

EDUCATION

Rutgers University, M.S. in Computer Science 08/2024 – 05/2026 (expected) — New Brunswick, NJ
Relevant Coursework: Artificial Intelligence, Data Structures and Algorithms, Advanced Data Management, Compilers (RUST)
GPA: 4.0

Princeton University, Graduate Exchange program 09/2025 - 12/2025 — Princeton, NJ
Computational Models of Congition

Vellore Institute of Technology, B.Tech in Computer Science 08/2020 – 05/2024 — Vellore, India
Relevent Coursework: Software Development, Advanced Java, Cloud Computing, Machine Learning, Information Security Management

EXPERIENCE

Software Engineering Intern, Rutgers University 05/2025 – Present — New Brunswick, NJ

- Engineered scalable **data pipelines** and **REST APIs** using **FastAPI/Tornado** on **K8s**, processing user activity.
- Developed **Agentic Code editor for Jupyter lab** using **Gemini**, enhancing productivity with AI-powered code generation.
- Implemented **data security protocols** with **JWT** and **HS256**, ensuring secure data access for **10K+ daily requests**.
- Optimized **PostgreSQL performance**, improving query execution and reducing latency by **40%** for ETL workflows.
- Automated **CI/CD pipelines with GitHub Actions**, streamlining data deployments and reducing release time by **30%**.
- Delivered **12+ production data features**, enhancing delivery velocity by **35%** using **Agile/Scrum methodologies**.

Teaching Assistant, Rutgers University 09/2024 – Present — New Brunswick, NJ

- Mentored **100+ students** in data science emphasizing **analytical thinking**, and **reproducible, actionable reporting**.
- Automated data validation workflows, improving code maintainability and reducing manual effort by **40%**.
- Conducted sessions on EDA, data visualization, and predictive modeling using reproducible data processing pipelines.

AI Engineering Intern, FioLabs 03/2024 – 05/2024 — Hyderabad, India

- Engineered AI agents with **LangChain** to automate workflows, accelerating deliverables by **30%**..
- Developed **60+ AI modules** across 10+ domains, reducing integration time by **50%** while ensuring system robustness.
- Partnered with executives on client evaluations in **10+ industries**, supporting technical implementation strategies.

Artificial Intelligence Intern, Urban Kisaan 01/2024 – 03/2024 — Hyderabad, India

- Built **Computer Vision/Neural Network models (PyTorch)** and analyzed **IoT sensor data (Spark)**, improving farm efficiency by **45%** through scalable big data pipelines.
- Deployed **Node.js data APIs on Azure cloud** across **6 countries**, ensuring reliable distributed data processing services.
- Developed **React/Next.js dashboards** for maintainable real-time data monitoring and analytics applications.

Research Intern, International Institute of Information Technology 05/2023 – 06/2023 — Hyderabad, India

- Constructed automated data extraction tool in **Python** for video frame processing, improving research dataset reliability.
- Designed **Kafka streaming data pipelines** handling **1M+ daily users**, ensuring scalable real-time data processing.

PROJECTS

Personalized Quiz Generator

- Programmed a AI-powered quiz generator with **React, FastAPI, OpenAI**, containerized with **Docker**, deployed on **Azure**.

NutrientDefNet: Hydroponics Crop Monitoring

- Designed CNN in **TensorFlow** achieving **94% accuracy** in nutrient deficiency detection.
- Potential to reduce operational costs by **30%**; under journal review.

SKILLS

Languages: Python, SQL, Java, JavaScript/TypeScript, C++, C#, Go, RUST
Databases: PostgreSQL, MySQL, MongoDB, Pinecone
Frameworks/Tools: React, Node.js, FastAPI, Flask, SpringBoot, Django, TensorFlow, PyTorch, LangChain, Git, Docker, Apache Kafka, Apache Spark, Azure, AWS (Lambda, Fargate), GCP-ready
Concepts: Data Architecture, Database Optimization, CI/CD, Automated Testing, Machine Learning, Computer Vision, Distributed Data Systems, ETL/ELT, Data Pipelines, Data Warehousing, Big Data Processing