PRERANA KUMSI

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EDUCATION

- **Arizona State University, Tempe, Arizona** Aug 2024 – May 2026

Masters of Science in Computer Software Engineering GPA: 3.85/4.00

- **RV College of Engineering, Bangalore, India** Aug 2018 – Jul 2022

Bachelors of Engineering in Computer Science GPA: 3.42/4.00

TECHNICAL SKILLS & TOOLS

Coding Languages: Python, Go, C#, JavaScript (ES6+), Java, C/C++, SQL, HTML/CSS
Frameworks & Libraries: React, Angular, Redux, ASP.NET, Node.js, FastAPI, NLP, LangChain
Tools: Docker, Kubernetes, Git, Kafka, Grafana, PostgreSQL, pgvector, Redis, MATLAB, Figma

WORK EXPERIENCE

Arizona State University *May 2025 – Present*

Graduate Teaching Assistant, Tempe, AZ

- Assisting in academic support for SER 321: Software Systems and SER 315: Software Enterprise: Design and Process.

Samsotech LLC.

Software Developer, Dubai, UAE *Apr 2023 – Jul 2024*

- Built a C#/.NET ID/passport reader to auto-fill forms and submit guest data to government portals, cutting manual entry by 80%.
- Developed background services to monitor folio creation and auto-dispatch eFolios via a custom *Forbes-compliant mailer, automating 1,000+ weekly transactions* and boosting engagement by *40%.*
- Built a full-stack E-Verify system using ASP.NET and Angular to screen guests at check-in, streamlining verification and boosting sales by 6%.
- Integrated 8+ key card systems with custom *encoding/decoding workflows* across 5 payment providers, ensuring secure, region-specific transactions; conducted configuration and deployment testing across client sites.
- Designed scalable *SQL Server schemas* across 10+ modules, enabling 20% faster queries and reliable handling of records; supported end-to-end validation and collaborated with teams from 20+ nationalities, earning the **Best New Joiner** award.

Ozone Cloud Inc.

Associate Software Developer, Bangalore, India *Apr 2022 – Mar 2023*

- Implemented 10+ full-stack modules with *Go (backend)* and *React (frontend)*, including an internal dashboard for deployment and repository management that streamlined about 100 weekly deployments for over 20 developers.
- Developed and deployed 15 Go microservices, handling 50K daily API calls with high scalability and uptime.
- *Implemented real-time data pipelines* using Kafka and Grafana to monitor cloud services, improving observability and reducing incident resolution time by 2 hours per issue.
- Engineered the *Ozone Operator-SDK* to auto-generate Kubernetes CRDs from existing resources, cutting repetitive YAML and standardizing configurations across *10+ production clusters*.

PROJECT HIGHLIGHTS

Second Brain (Python, FastAPI, RAG, LLMs)

Arizona State University, Tempe, United States *Dec 2025*

- Designed and built a multi-modal personal "second brain" that ingests audio, PDFs, and web content and answers natural-language questions using Retrieval-Augmented Generation (RAG) with source citations.
- Implemented an end-to-end ingestion pipeline with time-aware chunking, hybrid retrieval, and LLM-based reranking.
- Developed a full-stack prototype with asynchronous ingestion, job tracking, and fault tolerance using FastAPI, PostgreSQL + pgvector, and a React UI, with hybrid OpenAI/Ollama LLM integration.

AI Dream Analyzer (Python, NLP, AWS DynamoDB, React, JavaScript)

Arizona State University, Tempe, United States *Nov 2024*

- Designed a dream journaling platform powered by NLP to interpret user-recorded dreams, classifying themes like falling, being chased, or flying to infer emotional states and psychological patterns linked to REM cycles.
- Integrated AWS DynamoDB for structured dream storage and built an engaging, React-based UI that visualizes recurring themes and sleep health metrics, offering users a personalized and reflective journaling experience.