

# 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

### TwinMind – Personal “Second Brain” System (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.