

# ROM SHEYNIS INFORMATION SYSTEMS AND SOFTWARE ENGINEERING

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## SUMMARY

Software Engineer specializing in production-grade AI systems, retrieval-augmented generation (RAG), and reliable agent-driven analytics workflows. Strong Python proficiency with hands-on experience designing multi-agent systems, evaluation frameworks, and secure tool-augmented LLM pipelines. Experienced with SQL-based data systems (PostgreSQL/MySQL), MongoDB, backend development, and modern infrastructure tooling (Docker, Kubernetes, Terraform, AWS).

## PROFESSIONAL EXPERIENCE

**Research Assistant (LLM & AI) | CBG Labs** 03/2025 – 08/2025

- Designed structured evaluation frameworks to assess system robustness, latency, and safety under adversarial conditions
- Built automated Python test harnesses to validate behavior across edge cases and stress scenarios
- Developed repeatable testing workflows and analytical outputs to support systematic engineering comparisons
- Executed automated experiments and summarized results to guide research and development decision-making

**BIM Automation Developer | 360 Program, Civil & Environmental Engineering Dept.** 10/2025

- Architected an AI-powered assistant enabling natural-language interaction with complex Revit models
- Built a conversational interface triggering Revit API operations through tool-based orchestration
- Designed and implemented C# middleware (“Semantic Wrappers”) improving reliability and reducing incorrect outputs by ~90%
- Implemented grounding pipelines and spatial reasoning logic supporting automated compliance validation

## EDUCATION

**B.Sc in Information Systems Engineering, Ben Gurion University** 2022 – 2026

GPA: 85  
Relevant Courses: Object Oriented Programming, Data Structures, AI, ML, Cybersecurity & Network Defense

## SKILLS

### Programming Languages

Python, Java, JavaScript, C, C++, Bash, SQL

### Backend & APIs

Node.js, Express.js, FastAPI, Flask, RESTful API Design, PostgreSQL, MySQL

### Data Processing

Pandas, BeautifulSoup

### CI/CD

GitHub actions

### Databases

PostgreSQL, MySQL, MongoDB

### AI & ML Engineering

LangChain, LangGraph, AutoGen, OpenAI APIs, RAG  
PipelinesEmbeddings, Multi-Agent Orchestration, Pydantic

### Frontend

Vue 3

### DevOps & Infrastructure

Docker, Kubernetes, Terraform, AWS (EC2, Lambda, S3, Bedrock)GitHub Actions, Linux

### Tools & Monitoring

Git, Linux, Wireshark, Postman, Design Patterns

## PROJECTS

### Full-Stack Recipe Management Platform

- Developed a full-stack recipe application (Vue 3, Node.js/Express, MySQL/PostgreSQL) integrated with Spoonacular API
  - Implemented secure authentication, advanced search/filtering, favorites, personal recipe management, and Dockerized backend deployment
- [Link](#) 🔗

### Study Pal - AI-Driven Multi-Agent Study Assistant

- An intelligent learning companion built with LangGraph and a multi-agent architecture. Delivers personalized tutoring with RAG, analyzes learning gaps, plans future sessions, and provides motivational guidance in an automated, adaptive workflow.
- [Link](#) 🔗

## ARMY SERVICE

### Avionics Technician, Nevatim Air Base, Israeli Air Force

2017 – 2019

- Maintained avionics, navigation, and communication systems to ensure aircraft readiness.
- Provided technical support for mission-critical systems.
- Completed Commanders’ Course; led and trained an avionics technician team.

## Languages

- English - Highly Proficient
- Hebrew - Native
- Russian - Conversational