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## Professional Summary

Seasoned Software Engineer with deep expertise in Machine Learning and Artificial Intelligence, specializing in Python, Go, and TypeScript. Passionate about leveraging AI-driven solutions for cybersecurity and cryptography challenges. Proven track record of designing and deploying scalable, innovative AI and ML systems recognized industry-wide for effectiveness and adoption.

## Technical Skills

- **Languages:** Python, Go, TypeScript, JavaScript, Java
- **Frameworks and Tools:** Kubernetes, Docker, React, React Native, Next.js, Jest, FastAPI, Firebase, Google Cloud Platform
- **Security and Cryptography:** WebAuthn, FIDO2, NaCl, JOSE, JWT, Shamir's Secret Sharing
- **Databases:** CouchDB, PouchDB, BigQuery, Firebase Firestore
- **AI and ML:** Deep Learning, CNNs, Large Language Models (LLM), Semantic Search, Prompt Engineering

## Professional Experience

### Lead Software Engineer

*Mailio*

Salt Lake City, UT

Feb 2025 – Present

- Designed and implemented an end-to-end encrypted email system integrating semantic search for enhanced privacy and discoverability.
- Developed secure WebAuthn and FIDO2-based authentication solutions.

### Senior Software Engineer

*Azumio, Cocoon Cam, Chrysalis Cloud*

Various Companies

Jan. 2014 — Jan. 2025

- Built and deployed Calorie Mama, achieving best-in-class accuracy (88%) in food image recognition, integrated into Samsung Bixby.

- Engineered backend infrastructure achieving 50 req/s throughput for Calorie Mama API.
- Developed Chrysalis Cloud framework managing ML infrastructure, achieving 60x cost efficiency over AWS Kinesis, processing 15+ PB monthly.
- Key contributor to Cocoon Cam backend, leading to acquisition by Alarm.com, generating millions in revenue and high user retention.

## Notable Projects

### Mailio - Secure Email Platform

- Introduced "Handshakes", cryptographic contracts for trust-based communication, eliminating spam and phishing risks. (Mailio Website)

### Calorie Mama - Food Recognition API

- Best-performing deep CNN model for food recognition (2021). (Research Paper), integrated into Samsung Bixby.

### Chrysalis Cloud - Video Edge AI Proxy

- Optimized real-time intelligence processing, achieving significant cost savings compared to traditional AWS solutions. (GitHub), (Demo Video)

### Cocoon Cam

- AI-powered baby monitor backend development, significant market success. (CNBC Review)

## Achievements

- Proposed groundbreaking proxy-based HL7 document exchange solution, becoming a national standard in Slovenia.
- Contributed to impactful open-source projects.

## Education

### Master's in Computer Science

2005

University of Maribor, Slovenia

Specialization: Information Extraction and Envelope Induction

## Certifications

- Java Certification