ROYA GHAVAMI ADEL

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EDUCATION

- **Sharif University of Technology** — Tehran, Iran
  Bachelor of Computer Engineering, GPA: 16.42/20 (3.41/4) — 2019 – 2024
    - **Thesis**: Design and Implementation of a Wallet for Interacting with the Central Bank Digital Currency (CBDC) System. Explored secure UI/UX, token minting, key management, user authorization, and passphrase recovery.

- **National Organization for Development of Exceptional Talents (SAMPAD)** — Qazvin, Iran
  High School Diploma in Mathematics and Physics, GPA: 19.2/20 (4/4) — 2016 – 2019

RESEARCH INTERESTS

- Network Security
- Applied Cryptography
- Secure Systems Design
- Cryptographic Protocols
- Cloud Security
- Digital Currency Security
- Distributed Systems
- System Scalability

RESEARCH EXPERIENCE

- **Self-Directed Research: Optimizing Memory Management in Infinite Scroll Applications** — Tehran, Iran
  2024

TEACHING EXPERIENCE

- **Teaching Assistant, Natural Language Processing** — Fall 2024
  Dr. Mahdieh Soleymani Baghshah — *Sharif University of Technology*
    - Assisted in designing, reviewing, and correcting assignments.
    - Helped design and grade exams and final projects.

- **Teaching Assistant, Natural Language Processing** — Spring 2023 – Spring 2024
  Dr. Hamid Beigy — *Sharif University of Technology*
    - Assisted in assignments and project design.
    - Participated in grading exams and final projects.

- **Teaching Assistant, Database Design** — Fall 2023
  Dr. Fatemeh Baharifard — *Sharif University of Technology*
    - Designed and reviewed assignments and the final project.

- **Teaching Assistant, Numeric Calculations** — Fall 2023
  Dr. Fatemeh Baharifard — *Sharif University of Technology*
    - Assisted in designing and grading assignments.

WORK EXPERIENCE

- **TapsiFood — Food Delivery Platform** — Tehran, Iran
  Front-End / Full-Stack Developer — *May 2024 – Present*
    - Developed a NestJS-based microservice connecting internal systems with third-party POS platforms, ensuring reliable, event-driven communication using RabbitMQ, gRPC, and Redis.
    - Built a supplier-facing web application with Vue 3 and Vue Query, applying composable architecture and scalable rendering strategies (SSR, SSG, CSR).
    - Focused on system reliability, performance optimization, and clean separation of concerns between UI and data layers.
    - **Tech Stack:** Vue 3, Vue Query, TypeScript, Tailwind CSS, NestJS, MySQL, RabbitMQ, Redis

- **Jabama — Accommodation Reservation Platform** Tehran, Iran
  Front-End Developer *May 2023 – May 2024*
  - ○ Led development of backoffice platform modules, improving operational workflows for millions of users.
  - ○ Built real-time customer support tools and enhanced host-facing features with React and TypeScript.
  - ○ Applied scalable, maintainable design principles and performance-focused front-end architecture.
  - ○ **Tech Stack:** React, TypeScript, Node.js, Tailwind CSS, RESTful APIs

PROJECTS

- **Articles Search Engine:** ⍥
  - ○ Designed a scientific article search engine using Elasticsearch, Boolean retrieval, and TF-IDF scoring.
  - ○ Integrated semantic search with Transformer models (BERT) and embeddings.
  - ○ Implemented fuzziness, logical filters, and clustering with cosine similarity.

- **CBDC Wallet:** ⍥
  - ○ Built a secure digital wallet interface for Central Bank Digital Currency systems.
  - ○ Developed token minting, key generation, authorization, and passphrase recovery features.
  - ○ Proposed improvements for secure and scalable digital currency designs.

- **C-Minus Compiler:** ⍥
  - ○ Implemented a compiler for the C-Minus programming language in Python.
  - ○ Translated C- code into executable machine code as a learning tool.

SKILLS

Programming Languages: Python, JavaScript, TypeScript, Java, C, C++, SQL
Technologies & Tools: Node.js, Django, Vue, React, Nuxt, Astro, HTML, CSS, Sass, MySQL, GitHub, Docker, Postman
Libraries & Frameworks: PyTorch, NumPy, TensorFlow, Pinia, Vuex, Quasar, Axios, Tailwind CSS, Vuetify
Soft Skills: Teamwork, Problem-Solving, Prioritization, Motivation

LANGUAGE PROFICIENCY

- **Persian**: Native

- **English**: Fluent (TOEFL 92: L(27), R(25), W(20), S(20))