# Amirsadra Abdollahi

→ amirsadra.abdollahi@sharif.edu→ abdollahiamirsadra@gmail.com

 $\square$  +98 933-377-9699

☆ github.com/amirsadraabdollahi
 i linkedin.com/in/amirsadra-abdollahi
 ☆ amirsadraabdollahi.com

## **EDUCATION**

## Sharif University of Technology

B.Sc. in Computer Engineering GPA: **18.91/20** (3.93/4.00)

Tehran, Iran Sep. 2019 - Expected May. 2024

## RESEARCH INTERESTS

• Software Engineering • S

• Software Architecture and Design

• Requirement Engineering

### RESEARCH EXPERIENCE

### Title Generation Project

Sharif University of Technology, Tehran, Iran

• Research Assistant at the Intelligent Software Engineering (ISE) Lab Supervisor: Prof. **Heydarnoori**  Sep. 2023 - Present

- o Topic: Generating title for GitHub issues
- Conducting research on the automatic generation of titles for GitHub issues, a critical aspect of efficient issue tracking and resolution.
- Compiled a substantial dataset of issues sourced from prominent Java repositories to facilitate comprehensive analysis and model training.
- Developed and optimized encoders and decoders using neural network architectures, enhancing the accuracy and efficiency of title generation.
- Employed Large Language Model (LLM) tools to preprocess issue content, extracting relevant features for subsequent analysis and model input.

### WORK EXPERIENCE

### Cafe Bazaar

Software Engineer

Jan. 2022 - Present

- Installed, configured, and maintained various cloud-native tools, including GitLab, Sentry, and Prometheus, within a Kubernetes cluster, ensuring optimal performance and reliability.
- Played a pivotal role in developing and enhancing the Gateway system, responsible for efficiently managing and processing incoming requests to the cluster, acting as a robust load balancer and middleware for custom preprocessing tasks.
- Designed and Developed high-availability backend services, explicitly focusing on payment processing to ensure secure
  and accurate transactions, a rewards system where users could accumulate points and exchange them for discount codes,
  and facilitated seamless billing distribution to cross-functional teams in Python and Golang.

## ACADEMIC PROJECTS

#### • Object-Oriented System Design source-code

Spring 2023

- Developed a comprehensive social media platform, enabling users to create accounts, establish channels, publish diverse
  multimedia content, join channels, appoint administrators, and implement a payment system for accessing premium
  content.
- Applied a thorough object-oriented design approach, integrating the UML modeling language to ensure robust software architecture.
- Implemented the Unified Process (UP) methodology within a collaborative team environment, fostering effective project management and coordination.
- Leveraged the Django framework for the backend service, utilizing PostgreSQL for efficient database management, implementing essential features and functionalities, and established a CI/CD pipeline to streamline the deployment process onto a remote server.

## Data and Network Security source-code

Spring 2023

- Designed and implemented a secure messenger application in Python, focusing on robust data and network security measures
- Established secure connections between clients and servers utilizing socket programming, ensuring encrypted and reliable communication channels.

 Implemented encryption techniques using private and public keys to safeguard the confidentiality and privacy of client messages.

#### Computer Simulation source-code

Spring 2023

- Developed a Python program to simulate a dynamic queue-based system, offering valuable insights into system performance and efficiency.
- Considered a diverse range of parameters, including load balancing algorithms, the number of queues, and probability distributions for both incoming customers and the amount of time required for servers to complete tasks.

#### • Operating Systems source-code

Fall 2022

- Worked on enhancing an existing project, extending the ECS150 file system in C.
- Improved the performance by integrating a cache block into the read and write processes.
- o Addressed issues related to file deletion and editing, enhancing the file system's reliability and functionality.

## • Systems Analysis and Design source-code

Fall 2022

- Designed and developed a simplified version of Google Drive, offering account management, multimedia upload and download capabilities, and content sharing among users.
- Utilized the Django framework to build a robust backend service, enhancing the application's functionality and security.
- Employed Docker for containerization, ensuring seamless deployment and scalability of the application.

## • Advanced Programming source-code

Spring 2020

- Created a feature-rich e-commerce platform, enabling store creation, product selling, buying from other sellers, and user-to-user communication.
- o Utilized the MVC architecture with the Java programming language, ensuring a structured and maintainable codebase.

### TEACHING ASSISTANT EXPERIENCE

• Programming Languages, Prof. Izadi

Fall 2023

• Software Engineering, Prof. Rivadeh

Fall 2023

• Systems Analysis and Design, Prof. Aghamohammadi

Fall 2023

• Machine Learning, Prof. Sharifi-Zarchi

Fall 2022

• Artificial Intelligence, Prof. Rohban

Fall 2022, Spring 2022

• Probability and Statistics, Prof. Najafi

Spring 2021

• Advanced Programming, Prof. Fazli

Fall 2020

### Test Scores

TOEFL: 106 (Reading: 28, Listening: 30, Speaking: 21, Writing: 27)

### Honors and Awards

## Ranked 121<sup>th</sup> in the Nation-Wide University Entrance Examination

B.Sc. in Mathematics and Physics, among over 164,000 participants, 2019, Iran

## Member of the Sharif Basketball Team

- $\circ$  Won 1<sup>st</sup> place in Iran 3x3 competition between all universities.
- $\circ$  Won  $3^{nd}$  place in Tehran and found our way to the nationwide Olympiad.

## TECHNICAL SKILLS

• Programming Languages: Python, Go, C, C++

• Cloud Technologies: Kubernetes, Ceph, Prometheus

• Web Development & Database: Django, Gin, Postgresql, MongoDB

• Miscellaneous: Git, Linux, Docker, LATEX