

# Kamyar Mirzavaziri

Software Engineer



I love challenges so much that sometimes simple tasks make me bored. I started programming since the age of 14, and PHP since the age of 16. I'm 23 now and I'm still eager to learn new things. It's never enough. I think a person must be like a river not a swamp, always going, hitting obstacles, and making its way.

[kmirzavaziri@gmail.com](mailto:kmirzavaziri@gmail.com)

[+98 939 250 1338](tel:+989392501338)

Tehran, Iran

[@kmirzavaziri](https://www.linkedin.com/in/kmirzavaziri)

[kamyar-mirzavaziri](https://kamyar-mirzavaziri.com)

[@kmirzavaziri](https://www.instagram.com/kmirzavaziri)

## TECHNICAL SKILLS

### Back-end

Python, Django, PHP, Symfony, SQL, Redis, Rabbit, OOP, MVC, ORM, REST, HTTP

### Come in Handy Skills

UI/UX Design, Adobe XD, Adobe Photoshop, Adobe Premiere, Adobe Audition, Excel, LaTeX, Spark AR Studio, Composing and Playing Music

### Front-end (web)

HTML, Twig, JS, jQuery, CSS, SaSS, Bootstrap, Ulkit

### Version Control & CI/CD

Git, GitHub Actions and workflows, GitLab CI/CD

### Other Experiences

Coq, Ruby, R, Java, C, C++, Android Native, Flutter, Dart, Assembly

### DevOps

Docker, Linux (Ubuntu), Nginx, Network Management

## PERSONAL FEATURES

Self Motivated

Loves Challenges

Effective Communicator

Eager to Learn

Agile

# EDUCATIONS



## M.Sc., Computer Science

Sharif University of Technology · Tehran, Iran  
2022 - 2024



## B.Sc., Computer Science

University of Tehran · Tehran, Iran  
2017 - 2022



## High School Diploma, Mathematics

National Organization for Development of Exceptional Talents · Mashhad, Iran  
2010 - 2017



# SOME ACADEMIC PROJECTS



## Multiplayer Billiard · C++

Created a **multiplayer** billiard game with features like login, register, etc. The challenges were working directly with **web sockets** instead of protocols, and calculating the required physics for billiard balls.



## COOL Compiler · C & Java

Created a **compiler** for a language called **COOL** (Classroom Object Oriented Language), which compiles an **OO language** into binary codes.



## Cancer Cell Diagnosis · Python

Created an **AI agent** to diagnose **Cancer** cells by their Images.



## Assembler & Dis-assembler · Assembly

Created an Assembly **Compiler/Decompiler**, written in Assembly, that converts Assembly codes to binary codes and vice-versa.



## Quoridor & Battleship · Python

Created Quoridor and Battleship games (multiplayer on **network**), with login/register features.

## Insurance Data Analysis · R

Used R to Analyze some data and get information. I did this as a bonus score for participating in an international data science competition. The challenge was that I didn't know anything about R and it took **less than a week** for me to learn and achieve the bonus score.



## Neural Network From Scratch · Python

Implemented a neural network with a lot of flexibility on network parameters including dimension, layers sizes, cooling algorithm, activation function, number of classes, etc. from scratch.



## Genetic & Memetic Algorithms · Python

Implemented genetic and memetic algorithms from scratch with a lot of flexibility. the challenging part was to design the architecture correctly to have a clean and flexible code.

# VOLUNTEER



# PUBLICATIONS



### Chief Scientific Officer (CSO)

Scientific Association of Computer Science,  
University of Tehran · Jun 2019 - Apr 2020,



### Head of Software Squad

Scientific Association of Computer Science,  
University of Tehran · Jun 2018 - Apr 2019,

- Managed **10+ workshops** and courses.
- Managed the **first Flutter workshop** in Iran, which led to the **first Flutter course** in Iran with **60+ students**.



### Teaching Assistant

Department of Mathematics, Computer  
Science, and Statistics, University of Tehran

- **Number Theory** instructed by Amir Ghadermarzi
- **Foundations of Mathematics** instructed by Mojtaba Mojtabaei
- **Logic** instructed by Mojtaba Mojtabaei
- **Linear Algebra** instructed by Siamak Yassemi

### PERMUTATIONS WITHOUT CERTAIN CONSECUTIVE PATTERNS

*Open Journal of Discrete Mathematics (OJDM) · 2016*

Pooya Daneshmand, Kamyar Mirzavaziri, Madjid Mirzavaziri

### k-COMBINATIONS OF AN UNLABELLED GRAPH

*Creative Mathematics and Informatics · 2015*

M. R. Ebrahimi Vishki, Kamyar Mirzavaziri, Madjid Mirzavaziri

### A CHARACTERIZATION FOR 2-SELF-CENTERED GRAPHS

*Seminarium Matematyka Dyskretna · 2015*

Kamyar Mirzavaziri, Madjid Mirzavaziri, Mohammad Hadi Shekarz



# PERSONAL INFORMATION

Date of birth  
8 March 1999

Place of Birth  
Mashhad, Iran

Sex  
Male

Marital Status  
Married



# EXPERIENCES



## Software Engineer @ Divar

Jul 2022 - Present

An Iranian Farsi classified ads and E-commerce platform for users in Iran & Afghanistan.

- Working on a website similar to **twitter** but for inside company usage only.
- Working on an online judge system similar to **Codeforces** for evaluating applicants' codes.
- Working at **Search & Submit Squad**.



## Software Engineer @ Avistopia

Oct 2021 - Jul 2022

a broad platform for learning, competitions, and career. Avistopia is a startup in its early stage.

- Working on **XUA Framework & Language** for building the project.
- Constructed and managing a team of **5 engineers**.



## Software Engineer @ Digikala

Aug 2020 - Sep 2021 · 1 yr 2 mos

Digikala is the **biggest e-commerce in the Middle East**, with practically **1M unique visitor per day**.



- Worked on Digikala's own PHP Framework **Supernova**, based on **Symfony**.
- Optimized performance by modifying queries, using cache system, etc.
- Completed **10+ notable complex projects**.



## Chief Technology Officer @ Arithland

Mar 2015 - May 2020 · 5 yrs 3 mos

An educational institute, thinking of new ways of teaching and competitions especially for mathematical skills.

- Managed a team of **5+ engineers**.
- Worked on online competition platforms mostly using **Pure PHP** and **WordPress**. (**5+ complex projects**)
- Designed a **network infra system** for in-person competitions which the scoring system was relying on.
- I learned **C#** and used it to create a web service for the Arithland competition scoring system.

# PHILOSOPHY

There is plenty  
of time to sleep  
in the grave.

— William  
Shakespeare



# PASSIONS



Programming  
- Obviously :) -

Mathematics

Detective  
Fiction

Bicycling

Formalism

# LANGUAGES



English ● ● ● ○

Farsi ● ● ● ● ●

# SOME REAL PROJECTS



## Switch · Freelance Project · IoT

- The Switch Project was our first experience in IoT (Internet of Things). We Equipped lab devices with small processors and developed a Server App and a Mobile App so they can turn on or off devices anytime anywhere using the internet.
- This idea saved a notable amount of money the lab was spending on workers.



## Adventure+ · Job-Related Project · Physical Game

- I developed this project during the time I was working at Arithland.
- This game aims to **promote mathematics**, and **physical activities** at the same time, using **gamification** methods.
- The game's back-end API was made using **OWL PHP Framework**, the former version of **XUA**.
- First Adventure+ competition was covered by IRNA, visit [irna.ir/news/83539329/](http://irna.ir/news/83539329/).



## Squidward · Personal Project · Course Assistant Web & Mobile App

- After being the TA of some university courses, I decided to create a smart system for managing a course and especially assignments.
- The project was a **Cross-Platform Synced** app for **Android**, **iOS**, and **Web**.
- I learned **UI/UX** design with **Adobe XD**, as well as **Flutter & Dart**, just for this project. This was one of my **full-stack experiences**.
- The MVP was 70% complete but due to the shortage of my time, I **suspended** the project but extended the idea to the **Avistopia platform**.



## Camel · Personal Project · Social-Network Manager

- This python project is supposed to manage Instagram Page, Telegram Channel, Twitter Page, etc., using given tags and context. The app's duty is not only to populate the page (with following-unfollowing people) but also **crawling content** from other sources (like Reddit, 9GAG, etc) and repost them on the page.
- The project was started when we wanted to start a coding meme page on Instagram and decided to handle all the legwork to a bot.
- I managed a team of **3 engineers** in this project, I started the project but currently, I'm just a consultant.
- Some challenges were **bypassing the reCaptcha** to crawl content, bypassing the restrictions in Iran to access Telegram via python bot, storing and process **big amounts of data**, etc.



## Majarajoor · Startup · Social Network & Media

- Majarajoor is a **Social Media & Social Network**, that tends to focus on experiences, this includes categorizing places (Restaurants, Camps, Shops, etc.) based on the type of experience they give. Some categories include Adrenaline, Oxygen, Mysterious, etc.
- My role was to Design a **WordPress Plugin**, which serves as an **API**, and integrates the website with the mobile app.
- I was offered to take the **CTO position** when the startup was growing but I got the Digikala job offer at the same time and decided to join Digikala to **learn new things**.



## Listouch · Freelance Project · Ranking Website

- Listouch is a ranking website that ranks everything and was my first official freelance project.
- I worked as a **PHP Developer** with a team of **7+ members**.
- I built and maintained a **WordPress Theme + a Plugin** which work together and manage all the **ranking data**. This was actually the **core**.
- The most **challenging** part was to **design database** in way so that **storing and analyzing data** is both **easy** and **fast**, having in mind that there were a lot of categories, sub-categories, different types of votes, etc.



## Dock Yard Management · Job-related Project · Ticketing System

- In this project, we added a smart **ticketing system**, in yards of Digikala. Yards are places where sellers deliver the goods.
- The most **challenging** part was to integrate with a **3rd party** who was responsible to develop the kiosks, and we had to develop an API which ticketing kiosks can communicate with.



## My Farm · Freelance Project · Investing Website

- This project is a web and app **investment platform**. Investors can invest in goods like trees and alive animals like cows, hens, etc. by
- paying money to farmers, and receiving the money by selling the products.
- I worked on the API by myself designing **data models, endpoints**, etc. It was the first project created using **XUA**.
- I also had the experience of completely deploying all the technologies from scratch, I used **docker** to do so.



## Sub Rosa · Personal Project · Mobile Game

- I created this simple mobile game using **Flutter**, based on the Eulerian graphs, in **two weeks**.
- I also Integrated the app with **Google AdMob Service**.



## 1401 Fortune · Personal Project · Instagram Effect

- I created this Instagram effect which is a floating egg over the user's head telling the fortune to **learn** working with **Spark AR Studio**, as well as to see how viral it can go.
- The effect reached **69K Impressions** in just **5 days**.
- The link to test it: <https://www.instagram.com/ar/819368886121734/>.

# ACHIEVEMENTS



## Development and maintenance of XUA

2019 - Present

XUA is a **PHP framework** and a **minimal language** that leads to PHP codes. XUA makes the process of coding easier and faster, while making the result more secure, and optimized. All the legwork and boring straightforward codes are generated by XUA.



## Co-authorship of a few Mathematical Papers

2015 - Present

Thinking about Math problems is one of the best pleasures, trying to focus on one unsolvable problem for hours, not only led to publishing some papers (in Graph & Combinatorics) but also made me a **person who loves thinking and doesn't get tired of it**.



## CSO of SACS, UT

2019 - 2020

As the **Chief Scientific Officer of the Scientific Association of Computer Science, University of Tehran**, Despite the pandemic, I managed many online workshops and sessions. My main goal was to introduce **practical skills** to university students, and show them what real tech companies do, which is usually far from what students learn in university.



## Teaching Assistant of 3+ courses at University of Tehran

2017 - 2021

I developed some smart tools for receiving Assignments, which led me to one of my personal projects, Squidward. Refer to Projects section for more info.