

EDUCATION

University of Iowa

Ph.D. student in Computer Science

Iowa City, U.S.

Aug 2022–Present

University of Kurdistan

B.S. in Computer Engineering, last 2 years GPA: 3.6/4, overall GPA: 3.3/4

Kurdistan, IRN

Sep 2016–Feb 2021

- Bachelor’s Thesis, Under the Supervision of Dr. Sadoon Azizi
- Design a demand-side management system with help of IoT and Big-data technologies

RESEARCH INTERESTS

- Distributed Systems
- Software Verification
- Internet of Things
- Mobile Computing

PUBLICATIONS

1. **Y. Boloorch**, S. Azizi, “An IoT-Fog-Cloud Framework for Demand-side Management in Smart Grid”. 5th International Conference on Internet of Things and Its Application. (IoT2021)
 - Outcome of Bachelor’s Final Thesis

HONORS AND AWARDS

- **Ranked Fifth**, among all 50 computer engineering graduate students in the University of Kurdistan. 2020
- **Top Five Percent**, among all engineering students in the University of Kurdistan. 2020
- **Granted**, National university tuition waiver (including partly necessary expenses). 2016

ACADEMIC AND INDUSTRIAL EXPERIENCE

Computer Science Department, University of Iowa

Research Project, Under the Supervision of **Dr. Octav Chipara**

Iowa, U.S.

Fall 2022 to Present

- Predictable and reliable wireless networks
- Developing tools and simulators to run network codes for verification of schedulability and predictability

Computer Engineering Department, University of Kurdistan

Research Project, Under the Supervision of **Dr. Sadoon Azizi**

Kurdistan, IRN

Spring 2019

- Investigation of HDFS (Hadoop Distributed File System)
- Install and maintain Hadoop distributed file systems on the High-performance computation center of the University of Kurdistan in order to upgrade servers’ response time and storage capacity.

Kurdistan Cloud Computing Development Company

Internship

Kurdistan, IRN

Summer 2020

- Traffic control system of the science and technology park of Kurdistan
- Contribution to the traffic control system of the science and technology park of Kurdistan using the Telegram messenger API in order to manage employees’ commuting for the HR manager.

TEACHING

- **Teaching Assistant** at University of Iowa Fall 2024 and Spring 2025
Theory of Computation, Dr. Elizabeth Kleiman, and Dr. Kasturi Varadarajan
- **Teaching Assistant** at University of Iowa Spring 2023 to Spring 2024
Introduction to Computer Science, Dr. Alberto Maria Segre, and Dr. Inés Zigrino Curto
- **Teaching Assistant** at University of Kurdistan Spring 2021
Computer Networks, Dr. Sadoon Azizi
- **Teaching Assistant** at University of Kurdistan Spring 2019
Computer Architecture, Dr. Alireza Abdollahpouri

ACADEMIC PROJECTS

- **WARP code simulator**
A simulator to process WARP network code by symbolic execution to verify schedulability and predictability
- **Real-time data analysis of users' consumption program (Course: Final Project)**
Built a statistical model based on collected big data from IoT devices, which analyzes the power consumption in a local area and does the optimization.
- **Search engine for Persian poets (Course: Data Mining)**
Constructed a search engine that returns the result of the given query based on four famous Persian poets.
- **Ticket management system (Course: Software Engineering)**
Created a ticket system that manages all the requests from internal customers.

SKILLS

- **Programming:** Python - C - Bash
- **Frameworks and Tools:** Git - TLA+ - Hadoop - Apache spark - Apache kafka - Docker - Web scraping - GUI toolkits - System administration (LPIC 1)
- **Markup languages:** \LaTeX , HTML, Markdown
- **Operation Systems:** GNU/Linux (Arch and Debian base distributions)

LANGUAGES

- **English:** Advance
- **TOEFL:** 101 (28/28/23/22)
- **Farsi:** Native

RELATED COURSES

- Formal Methods in Software Engineering
- Distributed Systems and Algorithms
- Mobile Computing
- Internet of Things

REFERENCES

- **Octav Chipara Ph.D.**
 - Google Scholar: Octav Chipara
 - Email: octav-chipara@uiowa.edu
- **Alberto Maria Segre Ph.D.**
 - Google Scholar: Alberto Maria Segre
 - Email: alberto-segre@uiowa.edu
- **Steve Goddard Ph.D.**
 - Google Scholar: Steve Goddard
 - Email: steve-goddard@uiowa.edu
- **Sadoon Azizi Ph.D.**
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