

MOHAMAD CHAMANMOTLAGH

BSc Student in the Department of Computer Engineering at the Amirkabir University of Technology

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EDUCATION

Bachelor of Science in Computer Engineering *2017 - Expected graduation at March 2022*
Amirkabir University of Technology (Tehran Polytechnic)

GPA: 17.17/20 (3.56/4.00)

Last two year's GPA: 18.19/20 (3.77/4.00)

Thesis Topic: Implementation of a Data Communication System Between a Microcontroller and an FPGA Using CAN-FD Bus Interface and CANOpen Protocol

Thesis Supervisor: Prof. M. Mehdi Homayounpour

RESEARCH INTERESTS

- Embedded Systems
- Internet of Things
- Field Programmable Gate Array (FPGA)
- Computer Architecture
- Operating Systems

RESEARCH EXPERIENCE

Amirkabir University of Technology
Part-time Undergraduate Research Assistant

March 2021 - Present

Research Topic: Automotive Embedded Systems.

Supervisor: Prof. M. Mehdi Homayounpour.

- Combined understandings of Microcontrollers, FPGAs, DSPs, and interfaces like CAN into designing a Real-Time Fail-Safe System
- Researched methods of Embedded Systems Distribution, including Hardware, Interfaces, and Protocols
- Examined Embedded Real-Time Systems with a focus on the Automotive Industry
- Served as a member of a collaborating academic group of six people

Amirkabir University of Technology
Part-time R&D Assistant

January 2020 - June 2020

Project: Android TV Optimization.

Supervisor: Prof. Hamed Farbeh.

Funded by Hadish Sabz Parseh Co.

- Improved Remote-Control Movement Detection and Boot-Up Speed
- Gained hands-on experience with Kernel Programming and Cross-compilers
- Reviewed design documents and standards in order to modify operating system modules and applications
- Served as a member of an academic group of five members in collaboration with Hadish Sabz Parseh Co.

TEACHING EXPERIENCE

Amirkabir University of Technology

2020 - Present

Teaching Assistant

Course: **Microprocessor and Assembly Language**

Fall 2020 - Present

Supervisor: Prof. Hamed Farbeh

Key responsibilities: Creating tutorials, developing lecturer's course materials, providing guidance for students, and developing and grading assignments

Course: **Internet of Things**

Fall 2021

Supervisor: Prof. Mehdi Rasti

Key responsibilities: Creating tutorials, providing guidance for students, and developing and grading assignments

Course: **Operating Systems**

Spring 2021

Supervisor: Prof. Seyyed Ahmad Javadi

Key responsibilities: Providing guidance for students and developing and grading assignments

Course: **Computer Architecture**

Spring 2020

Supervisor: Prof. Hamed Farbeh

Key responsibilities: Holding online classes, providing guidance for students, and developing and grading assignments

PROFESSIONAL EXPERIENCE

Hadish Sabz Parseh Co.

June 2020 - March 2021

Technical Leader

- Led a software development team and tried to meet the business deadlines, including development and deployment of a Resource Planning application inside the company
- Worked on multiple projects, including Digital Signage R&D, Android TV Optimization, and a series of web-based ERP products
- Acted as Servant-leader in one of the top Consumer Electronics companies in the middle east

Medycall Startup.

August 2019 - November 2019

Web Developer

- Developed Client-side code of a web-based system as a member of a startup team
- Gained experience with working in a highly agile team

Paydar Bonyan Farayand Co.

February 2019 - Nov 2019

Web Developer

- Participated in the development of both Server-side and Client-side components of a web-based system as a member of a professional team

TECHNICAL SKILLS

Programming Languages

C/C++, Java, Python, ARM Assembly, C#, MATLAB, JS

Design and Development Tools

Vivado, Quartus Prime, µVision, Proteus, Altium Designer

Simulation Tools

OMNeT++, ModelSim

HDL

Verilog, VHDL

GPU Programming

CUDA, OpenCL

Virtualization

Docker, VMware

Databases

MySQL, PostgreSQL, MongoDB

RELEVANT COURSEWORK

- Embedded and Real-Time Systems
- Microprocessors and Assembly Language
- Programmable Digital Systems Design
- Interface Circuit Design
- Digital Electronics
- Computer Architecture
- Operating Systems
- Internet of Things
- Signals and Systems
- Computer Networks
- Information Security
- Web Programming
- Multicore Programming

LANGUAGES

- English (Proficient)
TOEFL iBT score:
 - **112 Overall**
 - 29 in Reading, 30 in Listening, 26 in Speaking, and 27 in Writing
- Persian (Native)

HONORS AND AWARDS

Ranked in the top 0.2% in the Iranian National Universities Entrance Exam among more than 150,000 participants. *2017*

REFERENCES

Prof. M. Mehdi Homayounpour

E-mail: homayoun@aut.ac.ir

- Relation: Research and Thesis Supervisor

Prof. Hamed Farbeh

E-mail: farbeh@aut.ac.ir

- Relation: Teaching and R&D Supervisor

Prof. Mehdi Rasti

E-mail: rasti@aut.ac.ir

- Relation: Teaching Supervisor and Academic Advisor

Prof. Seyyed Ahmad Javadi

E-mail: sajavadi@aut.ac.ir

- Relation: Teaching Supervisor

* Academic transcript, other references, and further information are available upon request.