Arash Hajisafi | Curriculum Vitae

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Education

Amirkabir University of Technology   **Tehran, Iran**
Bachelor of Science, *Computer Engineering*   *September 2017 – Present*
  CGPA: 19.07/20 (3.97/4)
  Advisor: Prof. Mehdi Rasti

Related Coursework:

- Principles of Computer & Programming: **20**
- Advanced Programming: **19.25**
- Software Engineering (I): **20**
- Operating Systems: **19.95**
- Engineering Statistics: **20**
- Applied Linear Algebra: **19.26**
- Theory of Machines and Languages: **19.75**
- Microprocessor and Assembly Language: **20**

Khaje Nasir High School   **Tehran, Iran**
High School Diploma, *Mathematics and Physics*   *2013 – 2017*
  GPA: 19.89/20

Research Interests

- Software Engineering, Software Testing and Maintenance, Program Analysis
- Machine Learning, Reinforcement Learning, Natural Language Processing

Awards and Honors

2020: Currently Ranked Within the Top 5% of My Class in Computer Engineering Department with a CGPA of 19.07 (out of 20), Amirkabir University of Technology

2017: Received Full Tuition Waiver Scholarship from Amirkabir University of Technology

2017: Achieved the Top 0.2% Place Among All Applicants in the Iranian University Entrance Exam (nearly 140000 applicants)

2016: Awarded the Certificate of Honor at The **International Mathematical Kangaroo Contest**

2016: Graduated as the Valedictorian of My High School with a GPA of 19.89 (out of 20)

Experience

Research

Design and Analysis of a Secure Smart Card Based Healthcare System
Research Method and Technical Presentation Course   *February 2020 — August 2020*
- The research consists of 2 main parts, the investigation of smart card architectures and modeling security threats in an Electronic Healthcare System. A functional system architecture has been proposed to address these security threats which specifies a smart-card-based authentication method (includes both Written and Oral Presentations).

Industry

Gam Electronics Co.   **Tehran, Iran**
Software R&D Intern   *July 2020 – Present*
- Designing and building automated business processes
- Participating in the development of complex business processes
- Taking the high-level requirements and transforming them into functional specifications with detailed development plans
- Preparing and executing User Acceptance Testing (UAT) and developing improvement plans as well as taking accountability in fixing identified errors
- Creating Web Forms for the given specifications

Technical Skills

Programming Languages
- Python (inc. NumPy and SciPy) (Professional)
- Java (inc. Spring, Hibernate and Maven) (Professional)
- C (Professional)
- C++ (Intermediate)
- MATLAB (Intermediate)
- Arduino (Professional)
- ARM Assembly (Professional)
- VHDL (Professional)
- Lisp, Racket (Intermediate)
- Xv6 Kernel (Professional)
- FreeRTOS Kernel (Professional)

Miscellaneous
- MySQL (Professional)
- Git (Intermediate)
- LaTeX (Intermediate)
- Linux (Intermediate)
- OOP (Professional)
- XML (Intermediate)
- Flex and Bison (Professional)

Web Development
- HTML5 (Intermediate)
- CSS3 (Intermediate)
- Bootstrap 4 (Familiar)

Softwares
- Vivado Design Suite (Professional)
- Proteus Design Suite (Intermediate)
- Camunda Modeler (Intermediate)

Language Proficiency
- **English** (fluent)
  - IELTS score: To be taken on September 20
  - GRE score: To be taken on November 9
- **Persian** (mother tongue)

Selected Course Projects

- **Research Method** - **Design and Analysis of a Secure Smart-Card-Based Healthcare System**
  - Research Method and Technical Presentation course results of every step taken from deciding on a subject to the final writing and presentation
- **Advanced Programming** - **JTanks Game**
  - A 2D tank game written in Java which features both multiplayer and single-player modes
- **Software Engineering (I)** - **That's MyTable V2**
  - Restaurant table booking and food reservation web application developed using Java, Spring MVC, Hibernate, and Maven
- **Database Design** - **Restaurant Management Database System**
  - A database system with GUI for restaurant management using Python, Tkinter library and MySQL
- **Computer Networks** - **NetWolf**
  - A Peer-to-Peer file sharing application implemented in Python
- **Operating Systems** - **Threads and Ticket Lock Implementation in Xv6**
  - Implementing threads and ticket lock in Xv6's kernel
- **Signals and Systems** - **MATLAB Voice Gender Detection**
  - Gender detection project based on audio files written in MATLAB
- **Programming Languages** - **NUMEX Interpreter**
  - A pure functional implementation of NUMEX (Number Expression Programming Language) in Racket

Further details regarding the projects are available through arashhs.github.io/#projects

Extra-Curricular Activities

- **High School Student Council President**
  I was the Student Council President during my senior years at Khaje Nasir High School and tried to do my best to bring everyone together and help the students to exert 100% of their abilities while growing together as a team and experiencing the joy of learning.

- **Website Moderator and Video Content Creator**
  I was responsible for moderating GameemaG's website (a credible video game related website in Iran which changed its name to VGMag) as well as the discussion board and creating video content for it in 2013.

References

Hamed Farbeh, Assistant Professor
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