Teaching Portfolio

Peyman Teymoori

Synopsis:

As it was my passion, I started teaching courses in the early days of my bachelor studies. They included teaching assistant and voluntary teaching of new topics to students. I was the first one at Ferdowsi University of Mashhad who taught/introduced Java, UML, and ASP back then in the late 90s. Considering the early start of teaching as well as introducing new topics at various institutes, the total number of my students in courses so far exceeds 1700 (details in the next section). These include around 40 classes and more than 30 (guest) lectures at national and international events. I have taught a wide variety of courses, and since I had to keep my knowledge up-to-date for my counseling job, I am ***comfortable with/open to other courses I have not taught***. As an evaluation of my teaching quality, in 2010 when I was a PhD student, I would teach (as the main and only teacher) the *Fundamentals of Computer Programming* course at University of Tehran (a top university in Iran), and I got the score of ***18.5*** (in a 20 scale) from student evaluations, while the average score of the school (of around 30 full professors, and 40 associate professors) was ***17.5***. In terms of course development, I have developed 7 courses from the scratch so far, 3 of them, artificial intelligence, software engineering, and database systems, led to some best-selling books/lectures, with tens of thousands of sold copies over the past years ([b1, b2, b3] in CV). My teaching experiences expand all the bachelor, MSc, and PhD levels, various forms including lectures, seminars, distance education (online), and creating national-wide exams.

Due to 15 years of my work experiences directly in educational institutes, ***my qualifications go well beyond just teaching and developing courses***. For example, I served as the ***manager*** and ***counselor*** of the computer engineering section at the largest private institute, Kanoon Ghalamchi – Iran, on preparing students for higher educations and national entrance exams. In addition to requiring the knowledge of computer engineering courses at a high level, the job involved ***close tracking of student development***, ***study program design***, ***exam creations***, and the ***coordination among students and teachers*** who were designing the materials. I performed the same service for specific courses, especially ***artificial intelligence*** and ***software engineering***, at another private institute, Mahestan – Iran. In general, working at ***private educational institutes*** in a ***very competitive market*** has given me invaluable knowledge of this type of education and a business-oriented mindset.

At UiO, I have performed a similar service under a pilot program; I have found a gap in the current master study program, and consequently, I wrote a proposal in early 2020 on ***modifying the master program*** to fill the gap, which could lead to a more beneficial study for master students, more useful services for our group at UiO – the Network and Distributed Systems group – and some potential benefits for future PhD students. The proposal was accepted and it was ***run as a pilot program in the department of informatics, UiO*** under my supervision with the assistance of the administration. Through years of educational work, I have participated in some courses and workshops on pedagogy in my home country. I participated in the pedagogy course at UiO starting on January 2022.

Teaching experiences:

Institute: Noroff, Norway

Title: "*C++ Bootcamp*" (start date: April 2023)

- Role: teacher
- Level: Bachelor/Master/Industrial
- Type: Physical/Digital
- Number of participants: unknown.
- Number of lectures: the course will be around 30 hours
- *This is a part-time program on C++ including latest standards, and object orientation. The students in the end will be supervised for around two weeks to do a case project as their final assignment.*

Title: "*Fullstack Development with Java*" (start date: January 2023)

- Role: teacher
- Level: Bachelor/Master/Industrial
- Type: Physical/Digital
- Number of participants: unknown.
- Number of lectures: the course will be around 100 hours
- *This is an intensive program on full stack development consisting of the most important topics in this area. In this program, I teach languages and technologies with mostly Java and JavaScript. It additionally includes DevOps and CI/CD. The students in the end will be supervised for around one month to do a case project as their final assignment.*

Title: "*Embedded Development with C++*" (start date: August 2022)

- Role: teacher
- Level: Bachelor/Master/Industrial
- Type: Physical/Digital
- Number of participants: 12.
- Number of lectures: the course will be around 100 hours
- *This is an intensive program on embedded development consisting of the most important topics in this area. In this program, I teach languages and technologies used for embedded development with mostly C++ and Python. It additionally includes the use of machine learning using Python on IoT devices and programming robots using NVIDIA Jetson™, which is the world's leading platform for autonomous machines and other embedded applications. The other topics include IoT, Qt framework, and OpeCV.*

Title: "*Front-End Development with JavaScript*" (start date: April 2022)

- Role: teacher
- Level: Bachelor/Master/Industrial
- Type: Physical/Digital
- Number of participants: 13.
- Number of lectures: the course will be around 100 hours
- *In this course, I will be teaching languages and technologies used for web development using latest frameworks in JavaScript (React), HTML, and CSS.*

Institute: School of Economics, Innovation, and Technology, Kristiania University College, Norway

Lecture: "*Computer Networking"* (Fall 2022)

- Role: Guest lecturer in the course "Digital Technology - TK1104"
- Level: Bachelor
- Type: Physical
- Number of participants: around 600.
- Number of lectures: 3
- *In this course, the students learn to use the TCP/IP model and knowledge of protocols belonging to it to analyze the entire process of connecting to a LAN and downloading e.g. a web page. They use standard tools for debugging and correcting network connections e.g., command line tools in Windows and Linux.*

Lecture: "*Computer Networking"* (Spring 2022)

- Role: Guest lecturer in the course "Digital Technology - TK1103"
- Level: Bachelor
- Type: Physical
- Number of participants: around 40.

- Number of lectures: 3
- *In this course, the students learn to use the TCP/IP model and knowledge of protocols belonging to it to analyze the entire process of connecting to a LAN and downloading e.g. a web page. They use standard tools for debugging and correcting network connections e.g., command line tools in Windows and Linux*

Institute: Department of Electronic Systems, NTNU, Norway

Invited Talk (Trial Lecture): "*Vehicle to Infrastructure (V2I) Communications*" (2021)

- Role: lecturer
- Level: Bachelor/Master/PhD/Faculty
- Type: digital via Zoom
- Number of participants: around 10.
- Number of lectures: 1

Institute: Faculty of Technology, Art and Design (TKD), OsloMet, Norway

Invited Talk (Trial Lecture): "*How Networking is Implemented in Cloud Computing*" (2022)

- Role: lecturer
- Level: Bachelor
- Type: digital via Zoom
- Number of participants: 5.
- Number of lectures: 1

Invited Talk (Trial Lecture): "*Key Success and Failure Factors of Smart Sustainable Cities*" (2020)

- Role: lecturer
- Level: Bachelor/Master/PhD/Faculty
- Type: digital via Zoom
- Number of participants: around 10.
- Number of lectures: 1

Institute: Gwangju Institute of Science and Technology, South Korea

Lab: *Communications and Sensor Networks* (2011 – 2013)

- Role: guest lecturer
- Level: Master/PhD
- Type: physical classes
- *In this lab, I had several lectures on advanced topics in wireless networks. I presented my PhD results as well as new approaches.*
- Number of students: around 20.
- Number of lectures: 4

Institute: University of Tehran, Iran

Course: Advanced *Computer Networks* (2011 – 2014)

- Role: guest lecturer
- Level: Master/PhD
- Type: physical classes
- *In this course, I gave several lectures on the design of high-speed wireless networks. Since the students were mostly PhD students, I focused more on advanced topics I was researching during my PhD.*
- Evaluation: I got very positive feedback from the students; they liked the content and especially, the way I taught the course.
- Number of students: around 20.

- Number of lectures: 2

Course: Open presentations on advanced topics in networking (2010 – 2014)

- Role: a lecturer
- Level: Master/PhD
- Type: physical classes
- *In this series, I gave several lectures on hot topics in high-speed wireless networks including IEEE 802.11n/ac, multi-channel MAC protocols, QoS and optimization, etc.*
- Number of students: around 20.
- Number of lectures: 10

Course: *Computer Networks* (2013)

- Role: teacher
- Level: bachelor
- Type: physical classes
- *In this course, I taught basic concepts of computer networking, from the physical layer to higher layers such as transport. I used the textbook "Computer Networks" by Andrew S. Tanenbaum. The course had a midterm and a final exam, with homework, and a final project.*
- Evaluation: I got a very positive feedback from the students; they liked the content and especially, the way I taught the course.
- Number of students: around 30.

Course: *Fundamentals of Computer Programming* (2010)

- Role: teacher
- Level: bachelor
- Type: physical classes
- *In this course, I taught basic concepts of programming such as machine programming/concepts, programming in C/C++, and some OOP. The course had a midterm and a final exam, with homework, and a final project. I used a combination of textbooks, aligning the course content with its defined goals by the university.*
- Evaluation: score 18.5 (on a 20 scale) in the fall semester, 2010. The average score of the teachers in the department was 17.5.
- Number of students: around 30

Course: *Fundamentals of Information Systems and Electronic Commerce* (2010)

- Role: teacher
- Level: master
- Type: physical classes
- *In this course, I taught basic concepts of information systems and e-commerce. I used the textbook "Introduction to Information Technology" by Efraim Turban, R. Kelly Rainer, Richard E. Potter. It included topics on Digital Economy, Information Security, Data and Knowledge Management, and Network Computing. I additionally taught two lectures on programming with JavaScript, as a simple programming language to give the students a flavor of programming since they didn't have a programming background. The course had a midterm and a final exam, with homework, and a final project.*
- Evaluation: I got very positive feedback from the students; they liked the content and especially, the way I taught the course.
- Number of students: around 20.

Institute: University of Sistan and Balouchestan, Iran.

Course: *Artificial Intelligence* (2009 – 2011)

- Role: teacher
- Level: bachelor
- Type: remote, online teaching as well as a few physical classes
- *In this course, I taught various methods and algorithms used in artificial intelligence. I chose the well-known textbook "Artificial Intelligence: A Modern Approach", by Stuart Russell and Peter Norvig. I was also used my book ([b1] in CV) to teach complementary materials on how to get ready for master studies in this field. One of the special aspects of this course was that it was taught online using a digital system. This type of teaching has recently become popular due to COVID-19, but back then, it was futuristic. However, the students and I completely managed to handle communications, delivery of assignments, asking questions, and for me, how to involve students in class discussions. The result, I think, was great for both sides. The result, I think, was great for both sides. The course had a midterm and a final exam, with homework, and a final project.*
- Evaluation: I got very positive feedback from the students; they liked the content and especially, the way I taught the course.
- Number of students: around 80.

Course: *Software Engineering* (2009 – 2011)

- Role: teacher
- Level: bachelor
- Type: remote, online teaching as well as a few physical classes
- *In this course, I taught all the concepts in software engineering including project management, project estimation, software modelling and UML, software architecture, etc. I used several well-known textbooks in the field: "Software Engineering: A Practitioner's Approach" by Roger S. Pressman, "Software Engineering" by Ian Sommerville, and several books on UML. I was also used my book ([b3] in CV) to teach complementary materials on how to get ready for master studies in this field. One of the special aspects of this course was that it was taught online using a digital system. This type of teaching has recently become popular due to COVID-19, but back then, it was futuristic. However, the students and I completely managed to handle communications, delivery of assignments, asking questions, and for me, how to involve students in class discussions. The result, I think, was great for both sides. The result, I think, was great for both sides. The course had a midterm and a final exam, with homework, and a final project.*
- Evaluation: I got very positive feedback from the students; they liked the content and especially, the way I taught the course.
- Number of students: around 80.

Course: *Simulation and Performance Evaluation of Computer Systems* (2009)

- Role: teacher
- Level: bachelor
- Type: remote, online teaching as well as a few physical classes
- *In this course, I taught various topics on statistics, probabilities, and their applications in modelling of computer systems, as well as simulation techniques used in this field. I used several textbooks, and created a synthetic lecture, meeting the requirements of the course defined by the university. One of the special aspects of this course was that it was taught online using a digital system. This type of teaching has recently become popular due to COVID-19, but back then, it was futuristic. However, the students and I completely managed to handle communications, delivery of assignments, asking questions, and for me, how to involve students in class discussions. The result, I think, was great for both sides. The course had a midterm and a final exam, with several homework, and a final project.*
- Evaluation: I got very positive feedback from the students; they liked the content and especially, the way I taught the course.
- Number of students: around 40.

Institute: Mahestan Institute, Iran.

Course: *Artificial Intelligence* (2004 – 2010)

- Role: teacher, course development
- Level: graduated/seeking master studies
- *In this course, I taught various methods and algorithms used in artificial intelligence. I chose the well-known textbook "Artificial Intelligence: A Modern Approach", by Stuart Russell and Peter Norvig. I also prepared a complete lecture on this topic with the solution manual to all the questions in previous national exams for master studies as well as a number of newly-designed questions. The lecture became a book ([b1] in CV) and it was updated by the publisher and me per year. Thousands of copies of the book were sold per year as this was the first book on artificial intelligence with the goal of preparing students for Master studies. I taught this course for several years until I left Iran for a visiting researcher position in South Korea in 2011.*
- Evaluation: I got very positive feedback from the students; they liked the content and especially, the way I taught the course.
- Number of students: around 90.

Course: *Software Engineering* (2004 – 2010)

- Role: teacher, course development
- Level: graduated/seeking master studies
- *In this course, I taught all the concepts in software engineering including project management, project estimation, software modelling and UML, software architecture, etc. I used several well-known textbooks in the field: "Software Engineering: A Practitioner's Approach" by Roger S. Pressman, "Software Engineering" by Ian Sommerville, and several books on UML. I also prepared a complete lecture on this topic with the solution manual to all the questions in previous national exams for master studies as well as a number of newly-designed questions. The lecture became a book ([b2] in CV) and it was updated by the publisher and me per year. Thousands of copies of the book were sold per year as this was the first book on software engineering with the goal of preparing students for Master studies. I taught this course for several years until I left Iran for a visiting researcher position in South Korea in 2011.*
- Evaluation: I got very positive feedback from the students; they liked the content and especially, the way I taught the course.
- Number of students: around 90.

Course: *Database Systems* (2006)

- Role: teacher, course development
- Level: graduated/seeking master studies
- *In this course, I taught various methods and modelling techniques of data, and a complete introduction to relational databases as well as the SQL language. I used the textbook "Database System Concepts" by Abraham Silberschatz, Henry F. Korth, and S. Sudarshan. I also prepared a complete lecture on this topic with the solution manual to all the questions in previous national exams for master studies as well as a number of newly-designed questions. The lecture became a lecture note ([b3] in CV).*
- Evaluation: I got very positive feedback from the students; they liked the content and especially, the way I taught the course.
- Number of students: around 20.

Institute: Azad University of Karaj, Iran.

Course: *Information storage and retrieval* (2005)

- Role: teacher

- Level: bachelor
- *In this course, I taught various methods and algorithms on how to store data in files systems, file structures, indexing, sorting, fast retrieval of data, and data structures using in this field. This course is fundamental to database systems. I used a textbook, and prepared slides/lectures for students. The course had a midterm and a final exam, with several quizzes, homework, and a final project. The project was about implementing one of the methods explained in the course. The students were frequently asked about the quality/depth/breadth of the course and what they expect to learn.*
- Evaluation: I got very positive feedback from the students; they liked the content and especially, the way I taught the course.
- Number of students: around 50.

Course: Assembly and Machine Programming (2003, 2004)

- Role: teacher
- Level: bachelor
- *In this course, I followed a demonstrating/collaborative approach for assembly and machine programming. The course was held in a lab, where students could directly see the results of what I teach, and they were able to immediately write codes and see if they understood the content well. I used "MS debug" as the tool, and used "Turbo Debugger" as an advanced tool for further experiments.*
- Evaluation: since the course was in a lab in a demonstrative manner, I was able to see how the students develop, and based on their progress I would add/modify/remove future materials to get a better teaching performance. At the end of the semester, I got positive feedback from the students.
- Number of students: around 150.

Institute: Kanoon Ghalamchi, Tehran, Iran (*2002 – 2004*)

Role: manager and counselor of the computer engineering section

Task: Conducting national-wide, weekly contests on computer engineering courses among thousands of students who were getting ready for the national MSc entrance exam.

Level of students: graduated/seeking master studies

Description: *After finishing my Master courses, I started this position at Kanoon institute, which is the largest private institute in this business in Iran with hundreds of thousands of contestants per year in all the fields. As the computer engineering section head, I was responsible for all the coordination tasks among the teachers who were designing exam questions per course, the non-academic staff who were conducting and holding the exam, and the students participating in exams to be better prepared for the national exam. I was personally present at one of the exam sessions in Tehran, in a large hall of around 1000 contestants, answering the questions the students might have during and after the exam to summarize feedback for the teachers. Sometimes, I would also hold a lecture after each exam for interested students on questions in the exam. This was a very challenging and active experience for me because I had to be prepared, both on managing such collaborations and on answering to students, receiving/understanding their feedback on very specific topics in all the computer engineering courses, and then, having a meeting with corresponding teachers on how to improve next exams, and holding special courses with the presence of each teacher on-demand.*

Number of contestants: more than 10000.

Institute: Amirkabir University of Technology, Tehran, Iran.

Course: Distributed Artificial Intelligence (2002)

- Role: teaching assistant
- Level: Master
- *In this course, I was responsible for preparing the course website, the materials, etc.*
- Number of students: around 30.

Institute: Ferdowsi University of Mashhad, Mashhad, Iran.

Course: Java (1999 – 2001)

- Role: teacher
- Level: bachelor
- *In this course, I taught Java 1.1 and 1.2 (available versions back then) for the first time at the university. I used the book "Java 1.2 Unleashed", by Jamie Jaworski and some other books, and the course covered almost all of the features of Java such as core, Swing, RMI, and JDBC. The course became very popular and attracted many students, even those who were elder than me.*
- Evaluation: I got very positive feedback from the students; they liked the content and especially, the way I taught the course.
- Number of students: around 80.

Course: Compilers (1999, 2000)

- Role: teaching assistant/teacher
- Level: bachelor
- *In this course, the role of the teaching assistant was to teach advanced topics on compliers. In this course, I used a book on how to develop a compiler for a simple language. The compiler was written in C++ (OOP).*
- I was also responsible for teaching the students how to solve problems of the main textbook.
- Evaluation: At the end of the semester, I used my evaluation about the course, materials, teaching method, and my abilities. I got positive feedback from the students.
- Number of students: around 80.

Lectures: introducing new topics (1999, 2000)

- Role: lecturer/manager
- Level: bachelor
- *In a series of lectures, I introduced several new topics to students as a voluntary teaching duty. I was the head of the student scientific community, and based on students' feedback, I offered the series. I introduced the following topics for the first time at the university.*
- Topics:
    - Unified Modelling Language (UML). A complete lecture on UML and its diagrams with samples.
    - Jini: the Java distributed framework. A lecture on what Jini is and how to develop using that. I used the book "Jini Specification" as my reference.
    - CORBA: a distributed OOP framework.
    - ASP/JSP/JavaScript. A lecture on how to develop web applications beyond CGI, which was popular back then.
- Evaluation: I used my capacity as the head of the student scientific community to get students' feedback/opinions through different methods on how to conduct the series. This helped a lot in fine-tuning the program for students.
- Management: as part of my duties, I also coordinated with some other teachers to hold workshops/lectures on similar topics.
- Number of students: around 300.

Course: Assembly and Machine Programming (1998, 1999)

- Role: teaching assistant/teacher
- Level: bachelor
- *In this course, the role of the teaching assistant was to teach advanced topics on the assembly language such as the 80386 architecture instruction sets with solving more*

assignments. In this course, I used a book on "The 80386 Architecture", and created a digested lecture from it with extra examples and problem solutions.
- I was also responsible for the lab of this course, helping students with their programming problems in the lab.
- Evaluation: At the end of the semester, I used my evaluation form about the course, materials, teaching method, and my abilities. I got positive feedback from the students.
- Number of students: around 90.

Course: Advanced Programming (1998)

- Role: teaching assistant/teacher
- Level: bachelor
- *In this course, the teacher taught only C, but it was the role of the teaching assistant to teach C++ and Object-Oriented Programming (OOP). In this course, I developed a complete lecture of around 10 sessions on in-depth OOP; I used the book "Using Borland C++ 5" by Ed Toupin, Russ Jacobs, and created a digested lecture from all of its OOP chapters including polymorphism, multiple inheritance, etc. The last part of the class was dedicated to Delphi 3, and I used the book "Special Edition Using Delphi 3 (Special Edition Using)" by David Powell, 1997, to introduce an IDE for windows application developments.*
- I was also responsible for the C/C++ lab of this course, helping students with their programming problems in the lab.
- Evaluation: At the end of the semester, I created an evaluation form about the course, materials, teaching method, and my abilities. I got very helpful feedback from the students, and my overall score was around 18 (on a 20 scale).
- Number of students: around 40.

Institute: Sadjad University, Mashhad, Iran

Course: Assembly and Machine Programming (1999)

- Role: teaching assistant/teacher
- Level: bachelor
- *In this course, the role of the teaching assistant was to teach advanced topics on the assembly language such as the 80386 architecture instruction sets with solving more assignments. In this course, I used a book on "The 80386 Architecture", and created a digested lecture from it with extra examples and problem solutions.*
- Evaluation: I used different ways of getting feedback from students such as surveys and direct inquiries. I got positive feedback from the students.
- Number of students: around 200 (in 5 different classes).

Institute: Khayyam University, Mashhad, Iran

Course: Assembly and Machine Programming (1999)

- Role: teaching assistant/teacher
- Level: bachelor
- *In this course, the role of the teaching assistant was to teach advanced topics on the assembly language such as the 80386 architecture instruction sets with solving more assignments. In this course, I used a book on "The 80386 Architecture", and created a digested lecture from it with extra examples and problem solutions.*
- Evaluation: I used different ways of getting feedback from students such as surveys and direct inquiries. I got positive feedback from the students.
- Number of students: around 50.

Institute: Islamic Azad University of Mashhad, Mashhad, Iran.

Course: Compilers (2000)

- Role: teaching assistant/teacher
- Level: bachelor
- *In this course, the role of the teaching assistant was to teach advanced topics on compliers. In this course, I used a book on how to develop a compiler for a simple language. The compiler was written in C++ (OOP).*
- I was also responsible for teaching the students how to solve problems of the main textbook.
- Evaluation: I used different ways of getting feedback from students such as surveys and direct inquiries. I got positive feedback from the students.
- Number of students: around 50.

International Presentations:

- **Venue: 4th RINA International Workshop, Ghent, Belgium, 2015**
  Title: "Congestion Control in RINA"
  Number of audiences: around 50.

- **Venue: EUCNC (European Conference on Networks and Communications), Athens, 2016**
  Title: "RINA Capabilities in Future Congestion Control Design"
  Number of audiences: around 50.

- **Venue: IEEE LCN, Dubai, UAE, 2016**
  Title: "Even Lower Latency, Even Better Fairness: Logistic Growth Congestion Control in Datacenters"
  Number of audiences: around 100.
  It was a ***plenary session for the best paper award***, and I was one of the 3 candidates
  Link: https://www.youtube.com/watch?v=TnPjvQnP-24

- **Venue: NetSys '17 Conference, Gottingen, Germany, 2017**
  Title: "Game-theoretic analysis of Markovian play order in wireless networks"
  Number of audiences: around 50.

- **Venue: 5th RINA International Workshop, Barcelona, Spain, 2018**
  Title: "Advanced Congestion Control Policies in RINA"
  Number of audiences: around 50.

- **Venue: OCARINA Workshop, Oslo, Norway, 2019**
  Title: "Food Chain-based Congestion Control in RINA"
  Number of audiences: around 20.

Experiences from the supervision of students:

2019 – Supervising a master student: Lars Ovar Sveen

Role: main supervisor

Thesis: *designing a secure smart home framework using RINA*

Institute: Department of Informatics, University of Oslo, Norway

2016 – Supervising 3 PhD Students (in the OCARINA project)

Role: co-supervisor

Students:

- Kristian Andreas Hiorth
  - Thesis: *using machine learning over WiFi*

- Marcel Marek
  - Thesis: *multi-path routing*
- Kristjon Ciko
  - Thesis: *devising a proxy to deploy RINA/IoT*

Institute: Department of Informatics, University of Oslo, Norway

2013 – 2015 Informal co-supervision of a PhD Student (successfully defended in 2016)

Student: Muhammadamin Araghizadeh

Thesis: *using UAVs in wireless sensor networks*

Institute: School of Electrical and Computer Engineering, University of Tehran, Iran

2008 – 2010 Informal co-supervision of a master Student (successfully defended in 2010)

Student: Mohammadreza Effatparvar

Thesis: *routing in wireless ad hoc networks*

Institute: School of Electrical and Computer Engineering, University of Tehran, Iran

Experiences from the counseling of students:

2004 – 2010 **Institute**: Mahestan Institute, Iran.

Task: *providing professional advice on how/what to read computer engineering courses to get ready for the MSc national entrance exam. It included advising textbooks, materials, study approaches, how to choose a proper field in the master studies, future market, and the needs matching with courses to be taken.*

Major focus: *Artificial Intelligence, Software Engineering, Database Systems*

Number of students: around 50.

2002 – 2004 **Institute**: Kanoon Ghalamchi, Tehran, Iran

Task: *providing professional advice on how/what to read computer engineering courses to get ready for the MSc national entrance exam. It included advising textbooks, materials, study approaches, how to choose a proper field in the master studies, future market, and the needs matching with courses to be taken.*

Major focus: *all the computer engineering courses*

Number of contestants: around 100.

Experiences from examinations:

For all the courses I have been the main teacher, I personally designed the exams. In the following, I present my examination experiences for the courses with a different main teacher.

2011 – 2014 **Institute**: University of Tehran, Iran

Courses: *Advanced Computer Networks*

Level: Master/PhD

Task: *I was asked by the main teacher to design a number of questions on the lectures I had presented in the course.*

2002 – 2004 **Institute**: Kanoon Ghalamchi, Tehran, Iran

Task: *as the scientific head of the computer engineering section, I was responsible for the scientific approval of the exams provided by several teachers on all the computer engineering courses. The teachers would design exam questions, and then, I would verify if they match the overall syllabus of the exams, the exam series overall plan to cover all the materials in a specific number of exam sessions, announcing the students the plan and how to get prepared for each specific one. It was a very challenging experience and needed a lot of knowledge of all the courses and deep planning.*

Results: I successfully managed all the exam series, and got positive feedback from the students showing their satisfaction.

Major focus: *all the computer engineering courses*

Number of contestants: around 10000.

Experiences from examination committees:

2016 – 2021 **Institute**: University of Oslo

Level: master

Role: a defense committee member

Number of students: 4

2020 – 2021 **Institute**: University of Stavanger

Level: bachelor

Role: a defense committee member

Number of students: 3

Pedagogically related experiences:

Study Program Development:

2022 – **Institute**: Noroff, Norway

- Since the beginning of teaching embedded development at Noroff, I have also started developing a complete program for embedded development since this topic was new there. This topic had been run there as a pilot, and the goal was to make it a full program. I added the missing parts and modules to the program including some C++ features, CI/CD, Internet of Things (IoT), Embedded Communication and Networking, Open Platform Communication (OPC), a complete introduction to artificial intelligence and machine learning, and some lab work using Cisco Packet Tracer. The program is still under further improvement by receiving more feedback from our partners.
- I am now designing a C++ bootcamp as a part-time program.

2020 – **Institute**: University of Oslo, Norway

- At UiO, I am running a pilot program; I have found a gap in the current master study program, and consequently, I wrote a proposal in early 2020 on modifying the master program to fill the gap, which could lead to a more beneficial study for master students, more useful services for our

group at UiO – the Network and Distributed Systems group – and some potential benefits for future PhD students. The proposal was accepted and now it is run as a pilot program in the department of informatics, UiO under my supervision with the assistance of the administration. My Master student worked under this program.

Course development:

2004 – 2010

Institute: Mahestan Institute, Iran

- Artificial intelligence
- Software engineering
- Database systems

- *I developed these courses from the scratch, using a combination of several textbooks and online materials for each one, as well as compiling hundreds of multiple-choice questions with their solution manual. More details are in the "Teaching experiences" section.*

Examination plan development:

Institute: Kanoon Ghalamchi, Tehran, Iran

2002 – 2004

- *It was an extensive plan to divide all the computer engineering courses materials into around 10 parts, keeping the parts consistent and coherent due to their dependencies, and making sure that each division is not too heavy/difficult/shallow/easy. I designed such a plan considering current changes in the curriculum of the ministry of science and education, Iran.*

Textbooks and teaching materials:

For three of the courses I have taught, i.e., database systems, artificial intelligence, and software engineering, I authored books/lecture notes, led to some best-selling books/lectures, with over tens of thousands of sold copies over the past years.

[b3] **Peyman Teymoori**. *Database Systems*, Lectures on data modelling, data processing, SQL, and answers to hundreds of multiple-choice questions, Mahestan Institute, 2006.

[b2] **Peyman Teymoori**. *Software Engineering*, 2nd Edition, Pouran Pajouhesh publications, ISBN: 978-964-184-472-3, 2013, Iran. (in Persian)

Contributions: the author. A comprehensive 300-page book on main software engineering topics and a solution manual to all the previous questions in the national graduate entrance exam. The book can be (is) used as a textbook at (some) universities in Iran.

[b1] Toktam Ramezanifarkhani, **Peyman Teymoori**, MohammadHosein Mansouri. *Electrical Circuits, Artificial Intelligence, and Design of Algorithms: Preparing for the National Graduate Entrance Exam.* Azadeh publications, ISBN: 978-964-501-274-6, 2008, Iran. (in Persian)

Contributions: the author of the artificial intelligence section. A comprehensive 418-page book on the aforementioned topics and a solution manual to all the previous questions in the national graduate entrance exam

Administration of education:

2002 – 2004 **Institute**: Kanoon Ghalamchi, Tehran, Iran

Role: Head of the computer engineering section

Pedagogical education:

2022 **Institute**: Cisco

- Instructor training program (for the CyberOps course)
  - This is a special program run by Cisco for those who would like to be certified to teach Cisco-related courses. This program I am involved in is about Cyber Operations to teach Cisco CyberOps Associate[1].

2022 – **General pedagogical training programme (200 hours)**

Institute: University of Oslo, Norway

- Teaching and Learning in Higher Education - Introductory module. (120 hours, passed in Spring 2022)
- Research Supervision (30 hours, passed in Fall 2022)
- Development work for university pedagogy (50 hours, planned for Spring 2023)

2003 – 2005 **Institute**: Mahestan Institute, Iran

- Attending a two-day workshop on teaching methods, 2003
- Attending a one-day workshop on problem-solving, 2005

2002 **Institute**: Kanoon Ghalamchi, Tehran, Iran

- Attending a two-day workshop on designing study programs, 2002

[1] https://www.cisco.com/c/en/us/training-events/training-certifications/certifications/associate/cyberops-associate.html