**Milad Jamalzadeh**

# R&D engineer in haptics

My long term objective is to acquire enough knowledge and skills to create better solutions for providing realistic haptic feedbacks and surfaces and virtual reality.

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## Core business

*PHASE 2* **Skill development**

I believe I reached phase 2 for this skill . I achieved skills from a wide range of expertise as I have diplomas from different majors; bachelor in mechanical engineering, master in biomedical sciences and engineering, and currently studying computer science and information technology. My well-known references, my supervisors, were an important factor for the offers I received after applying to. Moreover, I tried to have connections with international researchers in the same field by studying in different countries. I got my master degree from Turkey and I study PhD in France, where I'm involved in an European project which has partners from different European countries. Stronger set of skills will give us better opportunity in future.

*Takes a critical look at his skills and experience and regularly fine-tunes his career goals.*
*Knows how to develop new skills to keep step with changing knowledge and needs.*
*Relies on advice from competent professionals (coaching) or experienced staff and takes their opinions into account; uses his networks to manage his career.*
*Is able to evolve gradually from technical expertise to managerial expertise.*
*Helps his staff develop their skills and networks and assists them in achieving career development goals.*

*PHASE 2* **Evaluation**

I believe I'm currently at phase 2 and I will be at same phase after graduation. After reading many papers published in my field of expertise, I can easily recognize the novelty of each work and how important it is and I can find the items the researches may have not paid attention to. By knowing the state of the art results in my filed and the statistics method which are used to evaluate the significance of a the results, I can judge my own results in terms of quality and added value. I always discuss my results with the trusted colleagues who I believe are expert in the field before submitting the work. I was reviewers of few papers which were submitted to some journals for publication, where I provided my opinion and feedbacks about their work.

*Knows how to regularly evaluate the progress, impact and outcomes of his staff's activities.*
*Takes part in evaluating both internal and external projects.*
*Is able to evaluate hypotheses and concepts lying beyond his field of expertise.*
*Encourages his staff to take ownership of the evaluation process.*

*PHASE 2* **Information management**

I believe I reached phase 2 for this skill after attending various training during my PhD. The state of the art in a scientific topic can be found by following the pioneers of the area on different platforms such as Google scholar, ResearchGate. By looking at the most recent publications of the pioneer authors in the area one can gain information about the most recent and impressive works in the field. Some authors also make their works available on Archive.org before official

publication. The review papers are also the most efficient way for gathering information about and have a general view of the researches done in a field. Improving this skill will help me to manage the information more efficiently.

*Conducts advanced searches using a range of software solutions, resources and techniques, recognizing the advantages and limitations of each.*
*Masters the creation, organization, validation, sharing, storing and archiving of information and/or raw data and addresses the associated risks.*
*Understands the legal, ethical and security requirements of information management.*
*Is familiar with the value of, and uses, metadata.*
*Advises and assists his staff using information-gathering and management methods, critiquing sources and evaluating information and data.*
*Makes his staff aware of information security and legal and ethical requirements.*

### PHASE 2 Expertise and methods

I believe for this skill I'm currently on phase 2 and it looks good to me. During my master studies, I took statistics course and used the methods I learned from the course in my master thesis. While working on the master thesis, I worked with researches from different fields such as neuroscience, mechanical engineering, psychophysics, and electrical engineering. In which, I was able to discuss the problem and my solutions to a wide range of audience from different fields. The thesis resulted in two publications in well-known conferences and journals in haptic community. The most important novelty of my work was a model I proposed for explaining the experimental results more accurately. I was able to convince my advisors and reviewers of my paper about the validity of my model.

*Is familiar with recent progress in fields related to his own.*
*Is able to engage in dialogue and collaboration with experts in other disciplines or fields of activity.*
*Takes ownership of new research methods and techniques.*
*Is able to document and evaluate his activities using statistical methods where applicable.*
*Can formulate complex problems that correspond to new challenges.*
*Is able to develop arguments in support of new projects.*
*Knows how to adapt his arguments to his audience.*
*Advises and assists his staff in making appropriate use of investigative methods, improving their performance and enhancing their skills.*

## Personal and relational qualities

### PHASE 1 Communication

I believe I reached phase 2 for this skill. I had several presentation for different audience inside and outside the academy. I also have teaching experience for several courses. I have profile on professional networks like Linkedin and ResearchGate. I speak four languages and I'm proficient in three of them. Recently I attended a public speaking course at University of Lille to improve this skill. I speak 3 languages proficiently.

*Knows how to put together a persuasive presentation and communicate about his project or his activity.*
*Understands, interprets and communicates appropriately in a register suited to his aims and his audience.*
*Masters a range of communication tools.*
*Masters his online identity.*
*Contributes to the dissemination of knowledge within the company, and demonstrates effective teaching skills.*
*Is proficient in at least English and one other world language.*

### PHASE 2 Collaboration

I believe I reached phase 2 for this skill. I had the chance to collaborate with people from different countries and expertise before, which I'm still in contact with. By taking a local training course and improving my network with from other countries I can improve this skill to have a stronger network and possible collaboration in future. By attending different conferences and

secondment during my PhD I was able to network with new scientists and even work with them on research projects.

*Collaborates with people/teams who play a pivotal role on the global scale.*
*Leads networks and helps to institute dialogue between different entities.*
*Knows how to establish partnership relations with people working outside his field.*
*Has the ability to co-produce results and/or innovations.*

### PHASE 2 Analysis, synthesis and critical thinking

I believe I reached phase 2 for this skill after attending the ATC2 training and the experiences I got during my PhD. During my PhD I came up with new solutions for human computer interaction. During my master studies, after reading the works of my peers, I proposed several problems as the thesis topic and for each I proposed the solution to how evaluate them. After finishing the experiments, I continued to modify the problem and the proposed solution until we get the results which we can explain. Even, for some of the results which were different than the proposed explanation, I came up with a better explanation which was able to explain the experimental results. The critical thinking is important skill in solving problems and finding new solutions.

*Knows how to apply his analyzing and synthesizing abilities to new fields.*
*Takes ownership of new analytical methods.*
*Has a novel and independent way of thinking and makes significant contributions.*
*Questions “business-as-usual” scenarios in his activity.*
*Advises his staff to help them develop their own capacities of analysis and synthesis.*
*Stimulates critical thinking among his peers and his staff.*

### PHASE 2 Open-mindedness and creativity

I believe I'm at phase 2 for and I will be at same phase after PhD. During bachelor I focused on mechatronics which is an interdisciplinary field between mechanical engineering, electrical engineering, and computer engineering. Later for master studies, I studied biomedical engineering and sciences with focus on psychophysical experiments in haptics. Then, for PhD I focused on computer science and engineering. My diplomas are obtained from different countries; bachelor from Iran, master from Turkey and I'm studying PhD in France. Moreover, I have defined a problem, and developed an Android application for that. My master thesis was an interdisciplinary problem, where my thesis committee member where from different departments such as mechanical engineering, neuroscience, psychology.

*Explores related fields.*
*Conceives new projects to find answers to essential questions.*
*Encourages his staff to seek challenge, be curious and engage in scientific questioning.*
*Defines and carries out innovative interdisciplinary projects with the help of contributors from various backgrounds.*
*Serves as a vector of innovation, a realistic visionary, a constructive agitator.*
*Encourages creativity and innovation among his staff.*
*Has acquired professional experience abroad in a culture other than his own.*

### PHASE 2 Commitment

I believe I'm at phase 2 and I will be at same phase after graduation. I have learned in which conditions I can work more and better. For example, seeing other people working around me motivates me to work more. So, my routine of working is going to office everyday till the last person is in the office and after that continue my work somewhere else like a library where there are always some people working. During all my graduate studies I was committed to catch the deadlines by working till late nights or even if needed till morning. I'm an open person to criticize from my colleagues or supervisors and I try to modify the mistakes.

*Can picture himself in other contexts; applies his commitment and motivation to other activities and fields of expertise.*
*Perseveres in his undertakings and projects; paves the way for other staff and supports them.*
*Inspires the enthusiasm and commitment of his staff.*

PHASE 1 **Integrity**

I believe I'm currently at phase 1 and will be at same phase after graduation. I have conducted hundreds of experiments including human subjects. In which I always respected standards, One important thing I learned is if the experimental results are different than your predictions from theory or simulation without doubt there is something wrong with the theory or the experiments. The reason for the difference can be a valuable finding. So, respecting the integrity can be more in favor of researcher. I had two publications where I didn't mention anything about the identity of participants.

*Respects the standards and practices of his entity.*
*Demonstrates integrity in the processing and dissemination of data.*
*Demonstrates integrity with respect to his partners' or competitors' contributions in accordance with intellectual property rules.*
*Upholds the confidentiality and anonymity of subjects taking part in studies and research.*
*Honors his commitments and ensures the congruence between actions and words.*
*Declares any conflict of interest.*

PHASE 2 **Balance**

I believe I'm currently at phase 2 and will be at same phase after graduation. I only apply to positions which I think fit to my skills and aptitudes. So far, all my employers and supervisors were happy with my performance. I was able to balance my personal and professional life before which caused to have peace in life and being an example for others.

*Knows how to deal with strong opposition.*
*Draws on his strengths and transcends his weaknesses.*
*Knows how to cope with pressure generated by his career or his personal life.*
*Is able to keep his work and home environments separate.*

PHASE 2 **Listening and empathy**

I believe I'm currently at phase 2 and will be at same phase after graduation. I'm a person who listens more than talking and give others enough time to express themselves. Also, I always tried my best to express gratitude toward others.

*Knows how to engage in active listening in various situations.*
*Is careful to take his contacts' needs and frame of reference into account.*
*Expresses gratitude regularly.*
*Takes the needs of his staff into consideration, is sensitive to signs of stress and able to provide support and advice when needed.*

PHASE 1 **Negotiation**

Though I don't have any experience in this skill but after taking a local training, I believe I will be at phase 1 after graduation. This skill does not seem very important for my future plans. That's what I'm not planning for any significant development in this skill.

*Is able to detect people's unstated needs based on the requests they formulate.*
*Knows how to reconcile the drivers, requirements and constraints of his contacts to reach a consensus, and is able to gather all the information needed to do so.*

## Business management and value creation

PHASE 1 **Project management**

At the beginning of my PhD, I didn't have any experience with managing a project. Though, I

took part in different project which in many I had key role and I was helping the managers in different aspects. I attended a local training to achieve phase 1 for this skill as I may need this skill in future career.

*Plans projects to meet goals in accordance with strategy and priorities, and taking quality, deadline and budget constraints into account.*
*Knows how to write specifications.*
*Is accountable for resources used and for meeting the deadlines and quality requirements of the deliverable.*
*Reacts efficiently and appropriately to change and unforeseen events.*
*Conducts his project within a framework of auditing and evaluation, deploying the appropriate systems.*

PHASE 1 **Managing change**

I believe I'm currently at phase 1 for this skill and I will be at same phase after graduation. During my thesis, I had to change the schedule a couple of times due to problems with the experiments or getting results which were different than expected.

*Can adapt his approach and the project organization according to imperatives.*
*Adapts to changes and opportunities; knows how and where to find advice.*

PHASE 2 **Managing risks**

I believe I reached phase 2 for this skill. Based on the experience I have with the experiments, I can predict some of the risks we may face and avoid them. Like the risks the experiments may have for participants or the failure probability for equipment. I attended ethical course in University of Lille where I learned to consider my responsibilities toward society and environment in my research.

*Analyzes and identifies the risks created by an activity.*
*Educates and trains staff and partners in the implementation of appropriate risk management procedures.*
*Takes social and environmental imperatives into account in the projects he manages.*
*Educates and trains his staff in the imperatives of social and environmental responsibility.*

PHASE 1 **Decision-making**

I believe I'm currently at phase 1 and I will be at same phase after graduation. I have four years experience in conducting experiments and I'm aware of stages of experiments and what decisions should be made in each step. Like which method should be chosen for experiment or which method should be chosen to analyze the result.

*Knows how to make appropriate decisions for each phase of his project.*
*Assists his line management in making major decisions (e.g., reporting, scenarios)*

PHASE 1 **Obtaining and managing funding**

I don't have any experience in obtaining or managing funds but by attending a local training I can get some experience and be at phase 1 after my graduation.

*Manages his own funding and is comfortable in discussions with budget, financial and economic decision-makers.*
*Understands the funding process and knows how to determine the profitability of an activity.*
*Knows how to answer a request for proposals and/or write a grant application.*

PHASE 1 **People management**

I'm currently at phase 1 and I will be at phase 2 after graduation. I have worked as teacher assistant for several courses where I was working with other peers. In some of those courses since I was the head TA, I had more responsibility and had to help the course instructor to manage the other TAs activities. Where I was monitoring other TAs to be sure they meet the deadlines and provide help for them if necessary. I will improve this skill by attending the "Revealing the entrepreneurial potential of PhD students" course as this skill most likely will be necessary in my future career.

*Has experience with teamwork; knows how to encourage, support and recognize the contributions of each player.*
*Knows how to be a team player.*
*Is able to win the trust of his peers and his line management.*
*Can report on his activities.*
*Supports his peers when needed and can provide assistance.*
*Understands human resources policies and management tools such as recruitment, evaluation, remuneration and strategic workforce planning.*
*Takes safety, social responsibility and labor law requirements into account.*
*Upholds rules on non-discrimination and equal opportunity among employees.*

### PHASE 2 Producing results

I'm currently at phase 1 and I think I will be at phase 2 after graduation. I had an idea for research topic which resulted in two publications and an idea for mobile application which resulted in an android program. Moreover, the projects I chose for my courses were chosen in a way that they are useful in daily life like library manager and book recommender. During my PhD I'm learning to use tools like Unity for creating products in virtual reality which can be used in the recent trended environments such as Metaverse. I also learned how develop apps for smartwatches. Moreover, I developed my programming skills for backend developing which is widely used for commercial products such as mobile apps and websites.

*Always seeks news ways to improve his performance and that of his staff.*
*Knows how to detect opportunities liable to lead to a commercial application.*
*Manages the transition from research to innovation: organizes processes and manages non-deterministic aspects.*
*Meets the challenges and opportunities for value creation in his field.*
*Deploys experimental platforms.*

### PHASE 1 Intellectual and industrial property

I'm currently at phase 1 and I will be at same phase after graduation. I'm aware of controlling the results before publishing paper and also I attended a training about rules and regulation for patents.

*Has basic knowledge of the rules of intellectual/industrial property and copyright as they apply to his own activities.*
*Understands the advantages and drawbacks of filing a patent.*
*Is aware of the importance of controlling the release of information.*

### PHASE 1 Customer focus

I'm currently at phase 1 and I will be at same phase after graduation. I developed an android program and after publishing the program I got familiar with how much customers feedbacks matters and implementing their expectations in the product is necessary.

*Is attentive to national and international markets; takes incoming and outgoing communication (suppliers, customers) into account.*
*Gathers information on the needs and expectations of internal and external customers.*
*Uses his technical expertise and familiarity with products to propose solutions tailored to customers.*
*Masters the basics of marketing.*

## Strategy and Leadership

### PHASE 1 Strategy

I don't have any experience about defining a project for organization's strategy. Though, taking the "Know the companies and organizations" course can give some insight about this matter and I will be at phase 1 for this skill after graduation.

*Is aware of how his project fits into the organization’s strategy and the strategic directions of the sector or field of activity.*
*Understands relationships between entities and individuals (the role and drivers of each).*
*Is able to identify influent people that support his projects and understand what they stand to gain from it.*

### PHASE 1 Leadership

I'm currently at phase 1 and I will be at phase 2 after graduation. I was acting as head TA (teacher assistant) for several courses, where I was leading other TAs so that we can meet the required deadlines. I will improve this skill be taking "Revealing the entrepreneurial potential of PhD students" course. This skill can be a positive point in the resume and can bring the chance to get better positions in future.

*Exercises leadership in connection with a project of which he is in charge.*
*Knows how to be persuasive and enlist support for a project*
*.Mobilizes skills for a project of which he is not in charge; manages human resources even when people do not officially report to him.*
*Builds alliances.*
*Establishes relationships based on trust.*