

PORTFOLIO WEBSITE

by

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DECLARATION

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person nor material which to a substantial extent has been accepted for the award of any other degree or diploma of the university or other institute of higher learning, except where due acknowledgment has been made in the text.

Signature
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CERTIFICATE



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Signature:

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TABLE OF CONTENTS

Topics	Page No.
DECLARATION	3
CERTIFICATE	4
ACKNOWLEDGEMENTS	5
CHAPTER 1 : Introduction	7
CHAPTER 2 : Design	11
CHAPTER 3 : Requirement Analysis	14
CHAPTER 4 : User Interface	15
CHAPTER 5 : Conclusion	21
REFERENCES	23

LIST OF FIGURES

Figure		Page
Fig 1	Screenshot of Navigation Bar	17
Fig 3	Screenshot of the Home page	18
Fig 4	Screenshot of Services Section	19
Fig 5	Screenshot of Contact Page	20

CHAPTER 1

INTRODUCTION

Real Life Problem Analysis

I have significant experience in a field indirectly related to information design, so entering this opportunity was an admission that I needed to undertake a career adjustment. Even though I understand what constitutes proper information design, my everyday work offers very few chances to undertake projects that allow me to show proficiency in information design. The best way for me to demonstrate my ability to work in the field of information design will be, therefore, to curate projects created in the IBM Full Stack Development and to find a far-reaching method of displaying these projects to potential audiences, including employers, colleagues, or other educational institutions. Creating a website will give me the necessary practice to create other similar projects. Repeatedly applying myself to similar projects will help me become comfortable with the rigorous process of designing for different media and different audiences. The reason for creating a personal web portfolio is that I would like to be part of a community that documents and shares ideas in the digital realm.

Leading up to my enrollment at IBM Full Stack Development, I saw higher education as a mostly solitary endeavor. However, once I started my educational journey, I began to see and experience how education benefits from context, collaboration, cooperation, and networking. This discovery was incredibly beneficial for me, especially considering the relative incongruity between my professional background and my area of study. With my new awareness spurring me on, I began to learn just as much from my classmates as I did from my instructors. Reviewing and analyzing the work of my peers—when given the opportunity—was one of the highlights of this program. I would like to return the favor not just to my peers, but to anyone who may acquire a glimmer of insight from my work. In that spirit, a personal web portfolio allows me to make a lasting, unselfish contribution to the existing body of work available in the fields of information design and technology.

Problem Identification

The Key takeaways for the problem identifications are :-

- Among the most widespread business problems that may come in the way of successful project portfolio management are poor visibility into project-related data, productivity gaps due to insufficient task automation, collaboration and communication issues, and suboptimal project selection. ·

- Most of those pain points can be eradicated by a Project Management Office with the support of an industry-grade PPM software tool. ·
- Lack of data Visibility ·
- Low Productivity ·
- Poor Collaborations across project teams ·
- Insufficient value from project activity ·

Problem Statement

Such data visibility issues directly translate into lower-than-average productivity of work, as project managers are wasting valuable time hunting for information and making sense out of unconsolidated data. Besides, firms that manage projects and project portfolios without the support of dedicated software tools typically find their project teams tied up in time-consuming administrative tasks such as report generation and sharing, or manual administration of time sheets.

All in all, the energy wasted on low- to non-value-added tasks can account for up to 90% of all the project work in some organizations. Add this to the lack of reliability of manually collated reports, and the performance gaps become too significant to be overlooked.

In addition to the gains and benefits derived from data consolidation in a single tool, automating all of this tedious, valueless work using the productivity features of a professional Project Portfolio Management platform can save 25% of project manager time. You do the math.

Existing Solution

In a majority of cases, the solution will be the adoption and implementation of a purpose-made PPM tool. More often than not, subpar data visibility is a symptom of toolset inadequacy. Some organizations just don't have a proper tool to manage their project portfolios and are doing their best to connect the dots manually using makeshift systems or collections of spreadsheets. Others are plagued by a software proliferation problem, causing data silos and asymmetries of information. In any case, consolidating all project-related data into a single, central repository equipped with advanced analytics capabilities should make blind spots a thing of the past.

Good collaboration across teams is indispensable to successful project delivery. The quantity and quality of interactions can be boosted significantly thanks to collaboration-friendly PPM tools with built-in communication, notification, and sharing features — and such features are becoming increasingly important with the spread of remote working, as geographically-dispersed teams are becoming the norm. But effective and fruitful collaboration also demands

the support of shared standards and of a common PPM process, which are typically introduced and maintained by a Project Management Office or a similar structure.

Problem With Existing Solutions

Having a clearly outdated portfolio can result in a host of negative assumptions and perceptions from your visitors. For example, they may think:

- Your newer work is not up to scratch compared with your older work. ·
- There's been no new work coming your way. ·
- You've been applying inconsistent effort across the various projects you undertake. ·
- You simply don't care about the projects you currently work on. ·

What's more, visitors who return to your portfolio and see the same old samples will quickly realize that keeping an eye on your work is a waste of time.

To address this problem, you'll simply need to dedicate an hour or two each month to assessing and refreshing your portfolio. For example, you can block out time around a monthly regular task (such as invoicing). Then, look at the projects you've finished over the past month, and weigh up whether they're worthy of your portfolio.

There are plenty of classic web design elements that many designers prefer to avoid – take sliders as a classic example. However, many of those features remain popular, so are still worth considering for inclusion in your portfolio.

In other words, you may understandably only want to showcase web designs elements you enjoy, but that may not be what potential customers need to see in order to make a hiring decision.

Third on our list of common web design portfolio mistakes is a particularly easy error to make. However, it could help or hinder your prospects of winning new work.

It helps to think of your portfolio as a business-generating tool, rather than just a creative showcase. This means that everything within it should be geared towards gaining customers, rather than simply promoting approval of your work.

Social proof is a great way of showing potential clients that you're a standout candidate for their next projects. After all, nothing says that you're a quality option quite like other businesses offering a thumbs-up.

When you're dealing with online customers, the little nuances you get when meeting face to face aren't present. In most situations, body language and the way a person speaks are crucial for determining whether to continue building a relationship. Of course, when you're online, you don't necessarily get that opportunity.

Instead, you have to do as much as you can with the tools you have available. Social proof goes along way, but having a well-written About section or page is key as well.

There are two elements to look at when it comes to describing your business: text and images. While a complete tutorial on these elements is beyond the scope of this article, here are a few tips to get you started:

- **Text.** Take 250 words to tell visitors who you are, what you do, how long you've been active, where you're based (and whether it matters), and why you're doing this work. Split across three paragraphs or so, this should be plenty to humanize your business. ·
- **Images.** Grab a friend with a phone, put on a smart-casual shirt, and find a clean wall with a color matching your portfolio's current scheme. Get them to frame your head and shoulders with enough surrounding space, then turn yourself 45 degrees and smile at the camera for the shot. This will provide you with a simple and direct headshot for your portfolio. ·

If you'd like to do even better, you can think about employing a professional writer and photographer. They may be able to offer some further insight on how to improve your online branding and presentation.

Finally, let's discuss a purely technical aspect of your portfolio. Strong navigation is vital for any website, and making sure yours is watertight will end up being a litmus test for your due care and attention to projects.

Proposed Work

A strong portfolio isn't set in stone but evolves over time. Making sure yours is effective and can win business and expand your reach – making a regular review well worth a little of your time. This post has looked at five web design portfolio mistakes, how to spot them, and (more importantly) how to fix them. You'll want to:

1. Keep your work samples current and relevant.
2. Display variety in your design skills.
3. Offer case studies and proof of success.
4. Describe yourself and your business clearly.
5. Provide effective and clear navigation.

CHAPTER 2

REQUIREMENT ANALYSIS

Software Requirement

1. Visual Studio Code

Visual Studio Code, also commonly referred to as VS Code, is a source-code editor made by Microsoft with the Electron Framework, for Windows, Linux and macOS. Features include support for debugging, syntax highlighting, intelligent code completion, snippets, code refactoring, and embedded Git.

2. MongoDB

MongoDB is a source-available cross-platform document-oriented database program. Classified as a NoSQL database program, MongoDB uses JSON-like documents with optional schemas. MongoDB is developed by MongoDB Inc. and licensed under the Server Side Public License which is deemed non-free by several distributions.

3. Brave Browser

Brave is a free and open-source web browser developed by Brave Software, Inc. based on the Chromium web browser. Brave is a privacy-focused browser, which automatically blocks online advertisements and website trackers in its default settings.

Hardware Requirement

4. Internal Internet Connection

5. 1.6 GHz or faster processor

6. 1 GB of RAM

7. OS X El Capitan(10.11+)

Windows 8.0, 8.1, 10,11 (32-bit and 64-bit)

Linux (Debian): Ubuntu Desktop 16.04, Debian 9

Linux (Red Hat): Red Hat Enterprise Linux 7, CentOS 7, Fedora 34

CHAPTER 4

ALGORITHM & USER INTERFACE

Website Schema

Think of Schema as the way in which you can leverage the value of content from your website (in the context of this post) so that search engines can understand the purpose of the content, how to crawl and index it, and most importantly, how to attribute the most value to the content.

When you add code to a website, you are telling the search engines to display what you provide them.

When you add Schema to a website, you are giving the search engines the chance to understand the meaning behind the

Structured Data

Structured data is the term people use, often interchangeably, to describe code added to a website or used in parsing that code, which follow existing rules to support information understanding.

Schema, rich snippets, microformats, RDF a, and Twitter cards are all examples of structured data.

The easiest way to remember this is that structured data has been marked up so that it can be understood more effectively, unstructured data has not.

Google, for example, identifies and reads structured data so that it can display rich snippets in its search results.

Rich Snippets

Introduced by Google back in 2009, rich snippets refer to search engines displaying extra information about a website's content in search engine results pages (SERPs).

Schema SERP

Website Schema was introduced in 2011 by Google as a means of helping search engines more accurately display relevant results to users. Unlike us humans, who can understand the context of our search, search engines can't do this. They can only display results from the structured data they read on your site.

An example would be this: You and your buddies want to go hunting some red deer in Alberta, so you pop it into the ole' Goog, but can only get results of Red Deer the city! Google thinks this is what you wanted, because it had no context that you wanted information on the animal, not the city!

Website Schemas are essentially words or tags in a "shared vocabulary" that can be used by your on-line marketing company (like us!) to talk to search engines like Google & Bing to provide refined searches. The website Schema.org provides a list of these "shared code vocabularies" that are in a easy to use format called Microdata. These are then separated into different categories with their own respective subcategories.

For example, there is an organization schema that can be funneled into the more narrow Local Business schema that can funnel into a Store schema.

Each of these "categories" have their own tags/code that are unique to them, that also include all the tags one level above them, and so forth.

The end result? Your website result sticks out on the SERPS and you increase your chances of a user choosing your webpage over a competitor – which is the end goal of all this work!

User Interface

Navigation Bar

Input: You have to tap any of the options provided as needed

Output: On Hover, will provide astonishing changes and when clicked will redirect to the same mentioned on the options



Fig 4.1: User interface for Navigation Bar

Main Webpage

Input: Nothing to place input here

Output: It will provide you all the main information needed to know the owner of this page

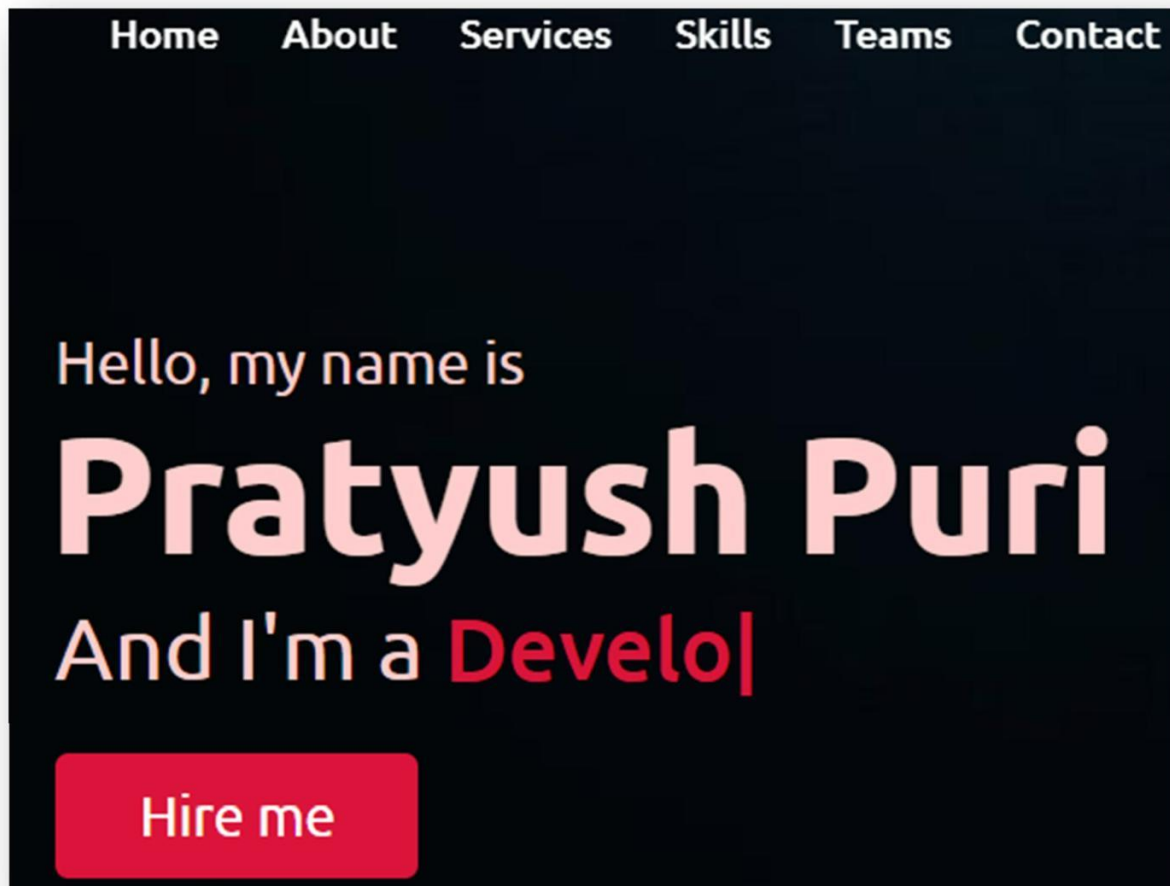


Fig 4.2: Partial Screenshot of the Portfolio page

Services Section

Input: Need to hover on the tabs to know information

Output: It will provide you about all the Services that will be provided to you by the owner once hired.

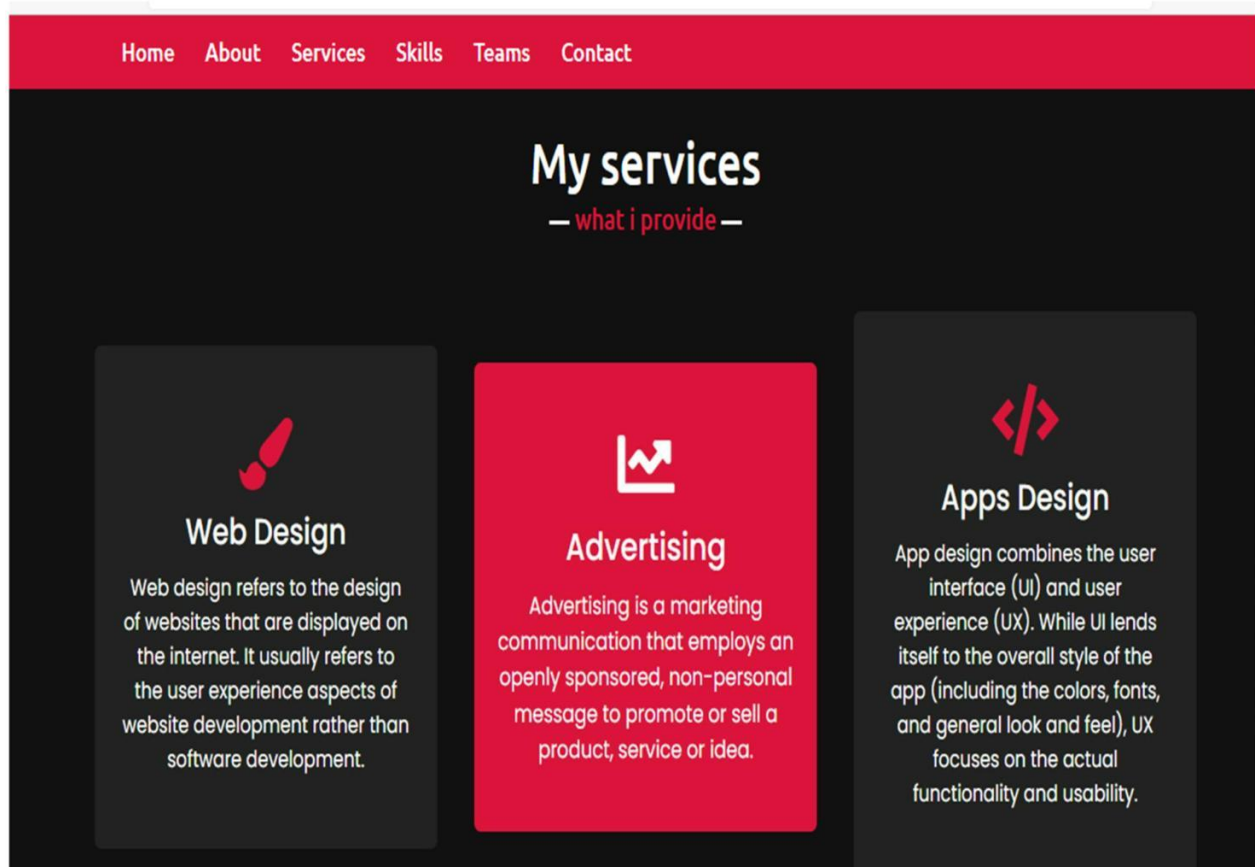
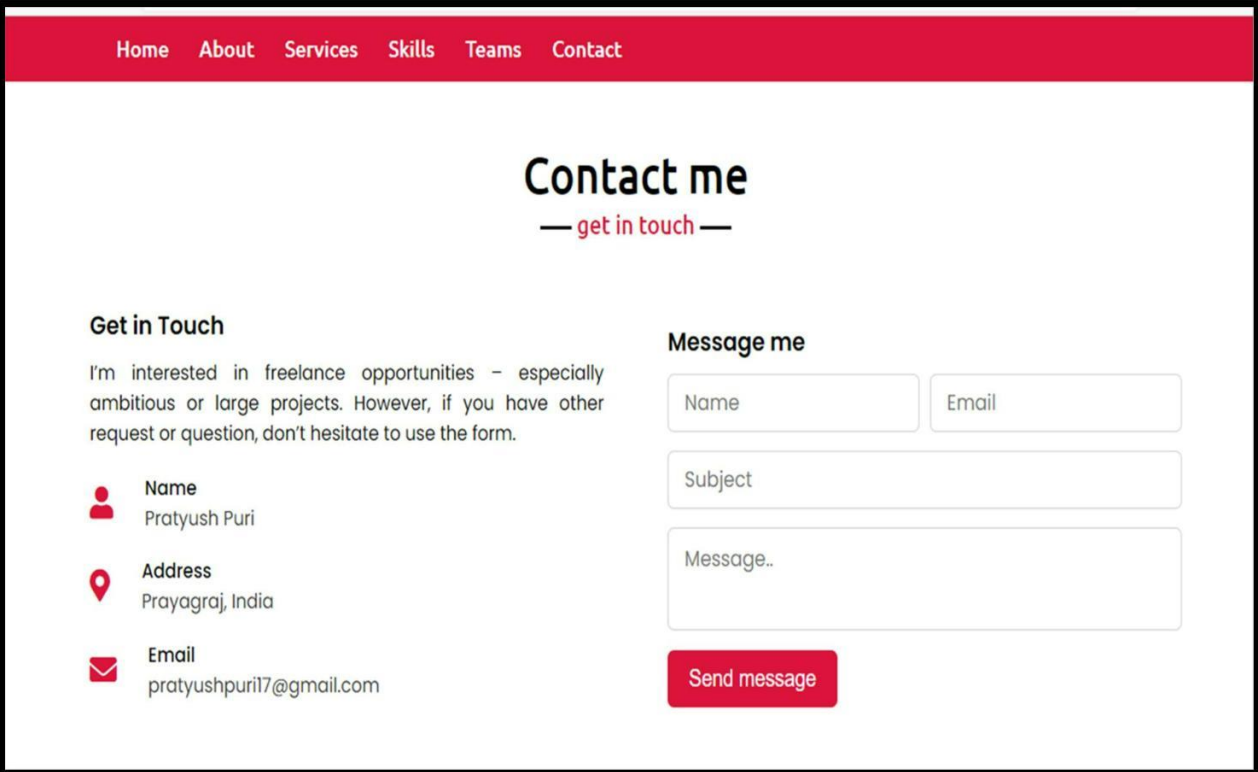


Fig 4.3: User interface for Services Section

Contact Section

Input: Need to enter your first name and the last name and then you have to type the title of the message you want to send to the owner and at the last you have to provide the message details to the message and have a clear finishing touch.

Output: An alert dialog box will appear at the top of the page mentioning that you have been completed with the submission of the form.



The image shows a web page titled "Contact me" with a red navigation bar at the top containing links: Home, About, Services, Skills, Teams, and Contact. The main heading "Contact me" is centered, with the tagline "— get in touch —" below it. On the left, under the heading "Get in Touch", there is a paragraph: "I'm interested in freelance opportunities - especially ambitious or large projects. However, if you have other request or question, don't hesitate to use the form." Below this, there are three contact details: Name (Pratyush Puri), Address (Prayagraj, India), and Email (pratyushpuri17@gmail.com), each preceded by a red icon (person, location pin, and envelope respectively). On the right, under the heading "Message me", there is a form with four input fields: "Name", "Email", "Subject", and "Message..". Below these fields is a red button labeled "Send message".

Fig 4.4: User interface for Contact Page

CHAPTER 5

CONCLUSION

Creating a personal web portfolio was the ideal project to end my journey through IBM Full Stack Development. It allowed me to recall many of the information design concepts that were new to me when I first started. The process of reviewing and analyzing websites; assuming researcher, curator, and designer roles; establishing my own design voice; and creating something out of it all was empowering. Though I had previously completed an undergraduate degree in Media & Communications—a design-related field—I never supplemented it with professional experience because I went into a field largely unrelated to design. I always felt that a web portfolio could help get me to return to a field that I had abandoned years ago. Making a portfolio website has also significantly tested my creativity and shown me that there are many career options, design specialties, and avenues for further study awaiting me. Initially, I had assumed that my specific role as a banker didn't lend itself to coming across information design opportunities. As a banker, I frequently give presentations using pre-existing and poorly designed PowerPoint templates. I have recently begun to redesign these templates to reflect good design principles and the theories of adult learning covered in my Instructional Design classes. I used to write blurbs highlighting my team's successes at work. Now, I am exploring ways to celebrate my team with other more dynamic media such as *Prezi* or *Adobe Spark*. Having access to additional tools. My web site falls into the category I had previously labeled as "student website." It is not focused on one specific type of design. Instead, it shows a cross-section of concepts one would expect to encounter in an Information Design program. I debated revisiting and updating some of my earlier class projects before putting them into the portfolio. This portfolio website will become part of my new normal, where I constantly update, tinker, remove, and evolve the elements of my projects over time. I am also partial to adult learning theories as they pertain to instructional design. As my career and project preferences evolve, I think that my content may skew in that direction. As I move forward, I expect that my experiences and the information design principles I have learned in IBM Full Stack Development's IBM Full Stack Development will continue to inform my evolution as an Information Designer. The personal portfolio website conceived, designed, and implemented here is only in its nascent stages. With time it will become a record of my long-term professional and academic endeavors.

REFERENCES

- [1] Anderson, S. (2019, December 10). How To Design Websites For Blind/Visually Impaired, Deaf, Disabled & Dyslexic Visitors. Retrieved February 27, 2020, from <https://www.hobo-web.co.uk/design-website-for-blind/>
- [2] Azmi, A. (2020, March 10). 10 Wix Website Examples We Absolutely Adore. Retrieved from <https://www.buildthis.io/growth/examples-of-websites-using-wix/>
- [3] Browning, R. (2019). How to Make a Portfolio Site: The Ultimate Guide from <https://skillcrush.com/blog/impressive-tech-portfolio/>
- [4] DiMarco, J. (2006). Web portfolio design and applications. Hershey, PA: Idea Group
- [5] Duckett, J. (2011). Html & Css design: design and build websites. Indianapolis: John Wiley & sons.
- [6] Katz, J. (2012). Designing information: human factors and common sense in information design. Hoboken, NJ: John Wiley & Sons.
- [7] Lidwell, W., Holden, K., & Butler, J. (2010). Universal principles of design, revised and updated: 125 ways to enhance usability, influence perception, increase appeal, make better design decisions, and teach through design. Beverly, MA: Rockport.