

ICS Website Redesign

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Requirements Final

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REVISION HISTORY

- **10/9/2017:**
 - Document initial functional and nonfunctional requirements
 - Decide on types of personas and scenarios
- **10/11/2017:**
 - Confirm requirements and personas with Matt and ICS Website Taskforce Committee
- **10/12/2017:**
 - Create and decide on a consistent format for persona diagrams
- **10/16/2017:**
 - Create a Table of Contents
 - Format the “Requirements Draft #1” Document
 - Add in “Revision History”, “Statement of Work” and “Assumptions” sections
 - Produce rough sketches of the front page of the website
- **10/18/2017:**
 - Include User Stories
 - Include finalized personas and scenarios
 - Complete Statement of Work
 - Complete Assumptions
- **10/30/2017:**
 - Update Statement of Work
 - Add to Assumptions
 - Reconfirm Requirements with Matt and ICS Website Taskforce Committee
- **11/1/2017:**
 - Update Statement of Work
 - Reword and elaborate on requirements
 - Update Table of Contents
- **11/9/2017:**
 - Update Statement of Work

STATEMENT OF WORK

Team Event Horizon is working with sponsor Matt Miller and the ICS Website Taskforce Committee to redesign the ICS departmental website. Currently the website is not scalable for all types of devices, and it is organized in such a way that the screen is overwhelmingly crowded and composed mostly of text and nested pages, making it complicated to navigate. Thus, our goal is to create a new design so that the website is updated, responsive, easy to navigate, and easy to maintain.

At the beginning of the quarter, Team Event Horizon had an initial meeting to discuss individual differences and similarities, strengths and weaknesses, as well as prepare questions to ask Matt. At the first meeting with Matt and the ICS Website Taskforce Committee, we were able to

discuss expectations regarding deliverables, requirements, and resources. We met again to discuss design ideas and decided to closely refer to the University of Texas at Austin Computer Science Department website since that is what the dean of the ICS department saw as an ideal design. Our third meeting with Matt was to confirm requirements and personas, which we based our user stories on. Our team has individually produced rough sketches of design ideas for the layout of the website, and as of Friday, October 13 Matt was able to grant us access to WordPress as a sandbox to experiment with.

During the middle of the quarter, Team Event Horizon created individual visual mock-ups of their respective rough sketches which were then presented to Matt and sent out to the ICS Website Taskforce Committee. With a wide range of feedback we have iterated through another round of detailed sketches. We have collectively come up with a visual mock up of the new sketch to present to Matt and the rest of the ICS Website Taskforce Committee. Once we agree on and confirm a final design we will be able to discuss specific features we would like to implement regarding the styling of the website.

We have also created storyboards to show the interaction and experience flow of the design. This will help ensure that the website is easily navigable for all users. To further produce a better understanding of our design, we have created various UML diagrams regarding different uses of the website as well as what features are included in the website. Thus far we have created four different diagrams: a sequence diagram and a corresponding class diagram demonstrating how an undergraduate would look up the ICS Academic Year Plan, a UML class diagram summarizing all of the features and requirements integrated in our design, and a state diagram showing the main navigation within the website.

In the near future, we will learn and begin to create our own custom theme in WordPress, implementing our final design. This will allow us to produce a live and working prototype of the redesigned website and thus help Matt and the ICS Website Taskforce Committee to better visualize and make sense of our design.

Based on our meetings and progress thus far, the main deliverables expected from Team Event Horizon include rough sketches of the initial design, mock-ups of the homepage as well as content pages, and a WordPress prototype of at least the home page. In order to achieve these goals we have completed our own individual rough sketches as well as visual mock-ups of our own designs. We met with Matt and the ICS Website Taskforce Committee to discuss the pros and cons of each design. With feedback, we aim to create and agree on a final design by the end of Week 6. Then we aim to generate high fidelity mock-ups by the end of Week 7, iterate and obtain approval by the end of Week 8, and construct the WordPress prototype by the end of Week 9. Last minute changes and final touches will be implemented by the end of Week 10.

ASSUMPTIONS

- Design only, little/no coding involved
- Assume use of website by undergraduate students based on our own experiences

- WordPress implements responsive design
- We will also reorganize content so that it is less overwhelming and more readable
- We will be designing and starting to build our own custom theme for WordPress

PERSONAS & SCENARIOS

Prospective Undergraduate Student - Freshman

Katie "Instagrammer" Ly

Xtensio



Age: 18

Occupation: Incoming Freshman (High School Senior) with an Undeclared ICS Major

Goals

- Description and information on majors and their respective career opportunities
- A list of course requirements for each possible major and minor
- To be able to contact Student Affairs -specifically an academic counselor or academic peer advisor- about advice regarding what major to decide on as well as scheduling and academic progress
- Tools and resources to aid academic and career planning including a Student Timeline

Description

Katie is an incoming freshman at UCI with an Undeclared major in the Donald Bren School of Information and Computer Sciences. She has some programming experience and enjoys coding. She wants to explore her major and career options but does not know what classes to take. She knows that she does not like learning about hardware, so she is debating between Informatics and Software Engineering. She would like more information on each major so she is able to make a more well-educated decision on what degree to pursue.

Scenario

Katie would like to inform herself on all majors offered within the school of ICS, so she visits the ICS website. She finds the web page titled "ICS majors" under the undergraduate tab. All of the majors are listed out with links to the each department website and the UCI catalogue, which contains descriptions of each major, information on career opportunities, and major requirements. Katie clicks through all the links and after reading about each major she decides to pursue a degree in Software Engineering. She notes what classes she should take for her first quarter at UCI by viewing the major requirements and the provided "Sample Program of Study" on the UCI catalogue website.

Wiley "Wonderman" Williams

Xtensio



Age: 20

Occupation: 3rd year Transfer Student majoring in Computer Science with a specialization in Artificial Intelligence

Goals

- To schedule an appointment with an academic counselor to ensure that his previous college credits transfer and count as units toward graduation as well as to make sure he is on track to graduate on time
- To view a list of major requirements to ensure that he is taking the right classes he needs to receive his desired degree
- To view previous student research projects as well as faculty research projects to scope out potential research opportunities
- To view events such as upcoming career fairs for ICS students

Description

Wiley is a junior transfer student majoring in Computer Science with intentions of specializing in Artificial Intelligence. He plans to check in with an academic counselor to make sure that his transfer credits count toward his Computer Science degree and to make sure that he is on track to graduate by the end of his senior year. He would also like to gain real world experience by landing an internship before his senior year. To help with this, he wants to attend a career fair on campus and speak with recruiting companies.

Scenario

Wiley would like to schedule an appointment with an ICS academic counselor, but does not know what times are available. He goes to the ICS website and finds the "Academic Advising and Planning" web page under the undergraduate tab. On this page he is able to view the ICS Student Affairs Office hours and clicks on the link to the appointments and walk in hours page. On this page he sees important information regarding both appointments and walk in meetings. Under this block of content he notices the appointment and walk in availability reference. Wiley was planning to schedule an appointment as soon as possible, but since appointments are not allowed for Weeks 1 and 2, he decides to walk in for a meeting on Tuesday of Week 1 after his last class at 12:30pm.

Undergraduate Student

Danny "Gamer" Fenton

Xtensio



Age: 20

Occupation: 3rd Year Undergraduate Student majoring in Computer Game Science

Clubs/Involvements: Video Game Development Club (VGDC), Middle Earth Attendant

Goals/Needs

- To look for classes being offered for the whole academic year so he can stay on track of fulfilling requirements for his major
- To locate information regarding where and when academic advising takes place with academic counselors and/or peer advisors.
- To submit a petition if he needs to get a prerequisite cleared or request a course to be waived/substituted.

Description

Danny is a 3rd Year Undergraduate Student who has a passion for gaming. Since he is one year away from graduating, he wants to visit the ICS Student Affairs office more often to plan out his upcoming class schedules. He wants to make sure he graduates on time. Danny also studied abroad this past summer and wants to get credit for one of the Computer Sciences courses he took at his host university.

Scenario

Danny is currently in the middle of the Fall Quarter of his junior year. He is looking at the "Sample Program of Study" for his major in UCI's general catalog. Danny wants to plan out his Winter Quarter classes. He wants to take either COMPSCI 122A, IN4MATX 113, IN4MATX 121, or IN4MATX 131 because that is what it says on the "Sample Program of Study". Danny goes to the ICS website and clicks on the "Academic Year Plan" in the Undergraduate section. He filters his search to show only Undergraduate classes and all the classes he's looking for shows up as classes being offered in Winter Quarter. Now, Danny has four different options for classes he could take for Winter Quarter.

Prospective Graduate Student

Jimmy "Dreamer" McGill

Xtensio



Age: 21

Occupation: Undergraduate CS Student in his 3rd Year

Goals

- Description and Information about UCI's Computer Science Graduate program
- Options of a Computer Science Graduate Degree
- Resources for Prospective Graduate Student

Description

Jimmy loves to learn. His passion derives from learning everything about the world around him and more. Having just graduated UCI with a degree in Computer Science, he wants to further his education and future and sees graduate school as the next stepping stone in his CS career.

Scenario

Jimmy goes to the UCI CS Website. He goes to the Graduate Section and clicks on the link for "Prospective Graduate Students". He sees a page with link to what is required for UCI's CS Graduate Program and all the other different subdivisions within UCI's program. He then take notes on the requirements and types of graduate school programs and then closes all the UCI link. He then access UT Austin's CS site.

James “Hard Worker” Sullivan

Xtensio



Age: 25

Occupation: Graduate CS Student at UCI

Goals

- Information on Faculty Talks and Guest Speakers
- A Calendar detailing the events and when they will occur
- To be able to easily find and locate information on Algorithm-specific seminars

Description

James is 3rd year in his PhD program focused in Algorithms. During his undergraduate years, he realized that he loves the world of CS, especially replicating and designing algorithms. James loved it so much that he is now sees himself as a University professor teaching algorithms. Currently, he is considering what seminars he can attend locally near UCI during this weekend.

Scenario

James goes to the UCI CS Website. He travels to the Calendar at the front page and clicks on it. From there, he can locate all the events and seminars happening during this week. He searches for a specific topic and dates. Once he finds an Algorithm seminar happening in the the Crystal Cove, he saves the event date to his Google Calendar and exits the page.

Faculty Member

Remus "Moonman" Lupin

Xtensio



Gender: Male
Age: 45
Occupation: Computer Science Professor
Marital Status: Married

Goals / Needs

- To find contact information of other faculty in and out of his department
- To be able to find events taking place in the school of ICS such as guest speaker presentations, seminars, and research presentations.
- Wants to browse and publish research topics on the website

Description

Remus has been a computer science professor for over ten years and is on the verge of getting tenure. He wants to contribute more to the field of computer science through his research in artificial intelligence and algorithms. It is his belief that publishing his next paper is the key to securing this tenured position. However, he must also teach four classes of lower-division undergraduate students, and is not willing to compromise their education in order to spend more time on research.

Scenario

Remus will be constantly using the ICS website to keep up with relevant topics related to AI and to find the contact information of his colleagues. In order to the page with the faculty's contact information, Remus navigates to the Computer Science department through a drop-down menu labeled 'Departments' on the ICS home page. He then clicks on 'Contact' and scrolls until he finds the name and information of his colleague.

Prospective Faculty Member

Dolores "High Inquisitor" Umbridge

Xtensio



Age: 51
Occupation: College professor for Data Science and Information
Marital Status: Single

Goals / Needs

- Wants to be hired as a professor for UCI's School of ICS
- Needs to be able to quickly find applicant information and requirements.
- Needs to be able to find current research projects by the school of ICS

Description

Dolores is a Data Science and Information professor at UC Davis who is trying to get hired by a college in southern California. She is moving from Sacramento to Orange Country so she wants a job that is local. There are several universities Dolores sees as potential places to work and wants to find out more information about each university to make a better informed decision.

Scenario

Dolores is on the ICS website and wants to find out more information about the student demographics. She hovers on "Undergraduate" from the main menu on the home page. From there, she clicks on "Student Profile," which takes her to a page detailing many of the statistics of the ICS students at UCI. Dolores is now able to view the amount of students in each major and in the school.

Elizabeth "Lizzy" Harrow

Xtensio



Age: 25

Occupation: Alumni/Software Designer at Symantec

Location: Culver City, CA

Goals

- Be able to easily navigate on the ICS website and learn how to become an Alumni first and foremost
- Links/forms to fill out to be alumni
- Be able to easily contact UCI-ICS faculty about any questions/concerns about how to get involved and give back to the UCI and ICS community

Description

Elizabeth is originally from Northern California. She attended the University of California, Irvine, graduated with a bachelor's degree in Computer Science and is now working at Symantec. She moved out to the LA area after graduating to take on her full-time job.

Scenario

Elizabeth just graduated from UC Irvine and would like to get more information on how to become an alumni. She goes onto the ICS website and clicks the tab "People" and then "Alumni". She then obtains more information on how to get involved, give back to the school, and stay connected.

Andrew "GOAT" Campbell

Xtensio



Age: 47

Occupation: Sponsor/Software Designer

Location: Irvine, CA

Goals

- Be able to easily navigate on the ICS website in search of potential projects to sponsor and obtain more information about it
- Links/forms to fill out to be a sponsor or part of a project
- Be able to easily contact UCI-ICS faculty for any questions/concerns about the project and/or working with students

Description

Andrew has been a software designer for about 20 years now. He has worked with various companies designing/testing software and helping those companies decide what they can do better with their system. Andrew has also works with students to sponsor various projects and startups, giving students the opportunity to work as interns with other students in groups.

Scenario

Andrew would like to learn more about how to sponsor a project. He goes onto the ICS website and clicks on the tab "get involved" and then on the tab "Sponsor Projects". He dislikes how the ICS site mainly states to contact the person for more information rather than providing more detailed information or a "read more" link to a new page on how sponsorship works.

REQUIREMENTS

FUNCTIONAL REQUIREMENTS

Must Haves (#1)

- A Display Navigation Menu at the top of the web page
 - One possible way to do this could be through nested menus which would include but not limited to:
 - Graduate
 - Prospective Students
 - Programs of Study
 - Admissions
 - Forms
 - Contact
 - Graduate Student Handbook
 - Undergraduate
 - Prospective Students
 - Academics
 - Admissions
 - Policies
 - Advising
 - Faculty
 - Alumni
 - Get Involved
 - About
 - Research
 - News and Events
 - Each nested menu would lead to other tabs on the website.
- Calendar
 - Available on the side of the web page
 - Should be easy to see and access
 - Includes upcoming events for ICS department
- Events page
 - List of upcoming events that are planned by ICS department
- Highlight Research
 - Specifically faculty research
- Social Media
 - Links to social media handles (i.e. Twitter, Facebook, YouTube, Instagram, etc.)
 - Display feed (i.e. slideshow of Instagram photos via @UCIBrenICS)
- Background picture on website to make it more visually appealing.
- Responsive design
 - Readable on all types of devices: Smartphones, tablets, computers, etc.

- Create a mock-up for large-screen devices as well as mobile devices.

Nice to Have (#2)

- Fix the search bar
 - Make the search bar bigger and possibly relocate on the web page.
- Update faculty directory
 - Make it easier to look up or find faculty members.
 - Consider filtering/search options.

Great if We Can Get It (#3)

- If design is completed ahead of schedule:
 - Give out surveys to different types of users who access the site in order to get feedback on what they like/dislike as well as what they want from the site.
 - Conduct research and obtain background information on what others might want to see on the website.

NON-FUNCTIONAL REQUIREMENTS

- Accessibility
 - Designing the website for people who experience disabilities
 - Making sure the website is color-blind user friendly
 - If videos are showing, making sure they have a subtitle option
- Usability
 - User should be able to achieve their quantified objectives with effectiveness, efficiency, and satisfaction in a quantified context of use
 - The user should be able to navigate through the website using multiple devices, such as a laptop, a tablet, or a smartphone
 - Intuitive to use and easy to learn
 - Easy to navigate
 - Easy to remember
 - Helpful to users
- Maintainability
 - The website can be maintained or repaired easily, economically, and efficiently
 - An administrator with access to make changes to the website should be able to do so without web design or coding experience
- Scalability
 - The website should have the capability to cope and perform under an increased or expanding workload
 - The website should be enlarged to accommodate that growth
- Security
 - Website should be able to secure confidential data that is stored online from unauthorized access and modification

- For example, students should not be able to find where faculty live when searching the faculty directory
- Extensibility
 - The website should take future growth into consideration
 - Have the ability to extend the website if necessary

USER STORIES

- As an undergraduate student, I want to look up classes being offered during the academic year so that I can plan out my classes for the year.
- As an undergraduate student, I want to figure out how to get advising on classes and my future career path so that I can make sure I graduate and meet my career goals.
- As a project sponsor, I want to look up research projects so that I sponsor a project with students.
- As a graduate student, I want to look up different doctorate degrees being offered so that I can choose the right PhD program that matches my interests.
- As a graduate student, I want to search for possible internships and research opportunities so that I can gain more experience in my field of study.
- As an alumni, I want to look up how to give back to the school so that I can be more involved after graduation.
- As an undergraduate student, I want to look up events such as upcoming career fairs, workshops, meetups, and technical talks, so that I can network with industry professionals and meet my career goals.
- As an undecided undergraduate student who isn't sure of my field of study, I want to be able to easily look up and compare the course requirements of different majors.
- As a faculty member, I want to easily navigate through the ICS website so that I can maintain the faculty directory and make possible revisions.
- As an undergraduate student, I want to contact the ICS Student Affairs Office so that I can schedule an appointment with an academic counselor or go in for walk-in hours.
- As a prospective faculty member, I want to be able to look into faculty recruitment so that I can learn more about the school, its culture, and what it has to offer.
- As an undergraduate Informatics student, I want to learn about the different fields and specializations and how I can apply what I'm learning in class, to the industry.