Dacia Sandero

Object detection in images

KF5012 Software Engineering Practice

Computer Science with Artificial Intelligence

Gabriel-Claudiu Stelea

Mircea-Constantin Sasu

Brendon Liew Jo Yen

Gabriel-Sebastian Visan

Mission distribution

Participant	Mission	Justification
Group-wide mission	Iterative Development (double)	As instructed in the project brief
Gabriel-Claudiu Stelea	Project Management	High marks in the "Working with others" + "Time management"
	Solution Testing	High marks in "Reading and Notemaking" + "Information seeking"
Mircea-Constantin Sasu	Baseline Implementation	High marks in coding + algorithmic thinking
	Mathematical Review	High marks "Working with numbers"+ medium marks "Writing skills"
Brendon Liew Jo Yen	Application Programming Interface (API)	Own interest + good marks in interface + coding
	Graphical User Interface (API required)	Own interest + good marks in interface + coding
Gabriel-Sebastian Visan	Project Ideation	High score "Writing skills" + "Information seeking"
	Solution Design	High score "Writing skills" + "Information seeking" + Interpreting and representing graphs

Aim of the project

The scope of the project is to develop a fully working software application that detects an object or a set of objects in an image supplied by the user. The objects detected will be outlined by a shape and the final image will be shown back to the user. The setting and range of objects will be settled on a later phase of development.

Gabriel-Claudiu Stelea

Part 1 Key Skills

SKILLS AREA	I CAN DO THIS WELL	OK, BUT I NEED MORE PRACTICE	I CAN'T DO THIS	PRIORITY DEVELOPMENT OF THIS SKILL 1 = very important, 2 = quite important, 3 = not important
ORGANIZATION OF LEARNING				
I have strategies to help me to plan and manage my time		x		1
I am able to effectively prioritise my tasks and activities	x			2
I am able to work to deadlines	x			1
I am aware of what makes my learning more effective (e.g. place to study, time to study etc)	x			2

INFORMATION SEEKING SKILLS				
I am able to find a specific book or journal in the library using the on-line catalogue	x			2
I am able to use a variety of different sources to find information (e.g. journals. books, electronic resources)		x		1
I am able to access and search electronic resources (on-line databases, electronic journals CD-ROMs)	x			2
I am able to use search gateways on the Internet to find information	x			1
I am able to evaluate the information I find	x			1

READING AND NOTEMAKING				
I can decide which parts of a book I need to read		x		1
I have a system for recording where I find information (e.g. book, author, date)		x		1
I can select and use different reading strategies (e.g. skim, scan, in-depth)	x			2
I can make effective notes when reading	x			1
I can make effective notes when listening (e.g. during lectures)	x			1
I have a system for recording and storing my notes	x			1

WRITING SKILLS				
I can analyse assignment (essay, report etc) questions to determine what is expected		x		1
I understand the difference between an essay and report	x			1
I can produce a written plan to answer an assignment question	x			1
I can punctuate, use grammar and spelling correctly	x			2
I am confident I can express my ideas clearly in written form	x			1
I am able to adapt my writing styles to suit the appropriate media/audience		x		1
I understand the need to reference my work to avoid plagiarism	x			1

SPOKEN COMMUNICATION				
I am able to express my views verbally	x			1
I am confident speaking in front of a group of people	x			1
I can prepare, plan and deliver a presentation	x			1
I can use visual aids to support a presentation	x			2
I am able to listen to and appreciate the views of others	x			1

WORKING WITH NUMBERS				
I am competent in making simple calculations	x			2
I can present numerical information accurately	x			1
I can competently use a variety of numerical techniques (e.g. percentages, fractions, decimals)	x			2
I can interpret and present information in graphs and illustrations	x			1

WORKING WITH OTHERS				
I am good at working with other people	x			1
I am able to lead or organize a group	x			1
I know how to plan and manage meetings		x		1
I am good at co-ordinating a group such as storing and sharing files and documents	x			1
I am good at supporting other people	x			1
I am able to get the best out of others	x			1
I can motivate others		x		2
I am able to manage conflict or disagreement	x			1
People look at me as a leader	x			2

STRESS MANAGEMENT				
I know what causes stress	x			2
I am aware of my personal symptoms of stress	x			2
I can use strategies to help me cope with my stress or other people's stress	x			1

PERSONAL DEVELOPMENT PLANNING				
I am able to identify my personal goals	x			2
I am a good judge of what my strengths and areas for development are	x			1
I am able to identify opportunities for learning outside my course, e.g. clubs, societies, employment	x			2
I am able to plan for my personal development	x			2

Part 2 Technical Skills directly relevant to your course.

SKILLS AREA	I CAN DO THIS WELL	OK, BUT I NEED MORE PRACTICE	I CAN'T DO THIS	PRIORITY DEVELOPMENT OF THIS SKILL 1 = very important, 2 = quite important, 3 = not important
Ability to test efficiency		x		1
Ability to work in a shared environment		x		1
Ability to work in an Agile environment		x		1
Commenting code and making use of functions	x			2
Ability to work with interfaces		x		1
Ability to ask for help	x			2
Ability to work with large amounts of data		x		1
UML diagrams		x		2
Coding	x			1

Mircea-Constantin Sasu
Part 1 Key Skills

SKILLS AREA	I CAN DO THIS WELL	OK, BUT I NEED MORE PRACTICE	I CAN'T DO THIS	PRIORITY DEVELOPMENT OF THIS SKILL 1 = very important, 2 = quite important, 3 = not important
ORGANIZATION OF LEARNING				
I have strategies to help me to plan and manage my time		✓		2
I am able to effectively prioritise my tasks and activities	✓			3
I am able to work to deadlines		✓		1
I am aware of what makes my learning more effective (e.g. place to study, time to study etc)		✓		1

INFORMATION SEEKING SKILLS				
I am able to find a specific book or journal in the library using the on-line catalogue		✓		2
I am able to use a variety of different sources to find information (e.g. journals. books, electronic resources)		✓		2
I am able to access and search electronic resources (on-line databases, electronic journals CD-ROMs)	✓			3
I am able to use search gateways on the Internet to find information	✓			3
I am able to evaluate the information I find		✓		2

READING AND NOTEMAKING				
I can decide which parts of a book I need to read	✓			3
I have a system for recording where I find information (e.g. book, author, date)		✓		2
I can select and use different reading strategies (e.g. skim, scan, in-depth)		✓		2
I can make effective notes when reading			✓	1
I can make effective notes when listening (e.g. during lectures)			✓	1
I have a system for recording and storing my notes		✓		2

WRITING SKILLS				
I can analyse assignment (essay, report etc) questions to determine what is expected		✓		2
I understand the difference between an essay and report		✓		2
I can produce a written plan to answer an assignment question		✓		2
I can punctuate, use grammar and spelling correctly	✓			3
I am confident I can express my ideas clearly in written form		✓		1
I am able to adapt my writing styles to suit the appropriate media/audience		✓		2
I understand the need to reference my work to avoid plagiarism		✓		2

SPOKEN COMMUNICATION				
I am able to express my views verbally			✓	1
I am confident speaking in front of a group of people			✓	1
I can prepare, plan and deliver a presentation		✓		2
I can use visual aids to support a presentation			✓	1
I am able to listen to and appreciate the views of others	✓			3

WORKING WITH NUMBERS				
I am competent in making simple calculations	✓			3
I can present numerical information accurately	✓			3
I can competently use a variety of numerical techniques (e.g. percentages, fractions, decimals)	✓			3
I can interpret and present information in graphs and illustrations	✓			3

WORKING WITH OTHERS				
I am good at working with other people		✓		2
I am able to lead or organize a group			✓	1
I know how to plan and manage meetings			✓	1
I am good at co-ordinating a group such as storing and sharing files and documents			✓	1
I am good at supporting other people		✓		2
I am able to get the best out of others			✓	1
I can motivate others		✓		2
I am able to manage conflict or disagreement		✓		2
People look at me as a leader			✓	1

STRESS MANAGEMENT				
I know what causes stress		✓		2
I am aware of my personal symptoms of stress		✓		2
I can use strategies to help me cope with my stress or other people's stress			✓	1

PERSONAL DEVELOPMENT PLANNING				
I am able to identify my personal goals		✓		2
I am a good judge of what my strengths and areas for development are			✓	1
I am able to identify opportunities for learning outside my course, e.g. clubs, societies, employment		✓		2
I am able to plan for my personal development			✓	1

Part 2 Technical Skills directly relevant to your course.

SKILLS AREA	I CAN DO THIS WELL	OK, BUT I NEED MORE PRACTICE	I CAN'T DO THIS	PRIORITY DEVELOPMENT OF THIS SKILL 1 = very important, 2 = quite important, 3 = not important
Ability to test efficiency	✓			2
Ability to work in a shared environment		✓		1
Ability to work in an Agile environment		✓		2
Commenting code and making use of functions	✓			1
Ability to work with interfaces		✓		3
Ability to ask for help	✓			1
Ability to work with large amounts of data	✓			1
UML diagrams		✓		2
Coding	✓			1

Brendon Liew Jo Yen
Part 1 Key Skills

SKILLS AREA	I CAN DO THIS WELL	OK, BUT I NEED MORE PRACTICE	I CAN'T DO THIS	PRIORITY DEVELOPMENT OF THIS SKILL 1 = very important, 2 = quite important, 3 = not important
ORGANIZATION OF LEARNING				
I have strategies to help me to plan and manage my time		✓		2
I am able to effectively prioritise my tasks and activities		✓		1
I am able to work to deadlines	✓			2
I am aware of what makes my learning more effective (e.g. place to study, time to study etc)			✓	2

INFORMATION SEEKING SKILLS				
INFORMATION SEEKING SKILLS				
I am able to find a specific book or journal in the library using the on-line catalogue		✓		2
I am able to use a variety of different sources to find information (e.g. journals. books, electronic resources)	✓			2
I am able to access and search electronic resources (on-line databases, electronic journals CD-ROMs)		✓		2
I am able to use search gateways on the Internet to find information	✓			2
I am able to evaluate the information I find		✓		1

READING AND NOTEMAKING				
I can decide which parts of a book I need to read		✓		2
I have a system for recording where I find information (e.g. book, author, date)		✓		2
I can select and use different reading strategies (e.g. skim, scan, in-depth)		✓		1
I can make effective notes when reading		✓		1
I can make effective notes when listening (e.g. during lectures)			✓	2
I have a system for recording and storing my notes		✓		2

WRITING SKILLS				
I can analyse assignment (essay, report etc) questions to determine what is expected		✓		1
I understand the difference between an essay and report		✓		1
I can produce a written plan to answer an assignment question	✓			2
I can punctuate, use grammar and spelling correctly		✓		2
I am confident I can express my ideas clearly in written form		✓		1
I am able to adapt my writing styles to suit the appropriate media/audience		✓		1
I understand the need to reference my work to avoid plagiarism	✓			1

SPOKEN COMMUNICATION				
I am able to express my views verbally		✓		2
I am confident speaking in front of a group of people			✓	1
I can prepare, plan and deliver a presentation		✓		1
I can use visual aids to support a presentation		✓		2
I am able to listen to and appreciate the views of others	✓			1

WORKING WITH NUMBERS				
I am competent in making simple calculations		✓		1
I can present numerical information accurately		✓		2
I can competently use a variety of numerical techniques (e.g. percentages, fractions, decimals)	✓			1
I can interpret and present information in graphs and illustrations		✓		1

WORKING WITH OTHERS				
I am good at working with other people		✓		2
I am able to lead or organize a group			✓	2
I know how to plan and manage meetings		✓		2
I am good at co-ordinating a group such as storing and sharing files and documents		✓		1
I am good at supporting other people		✓		1
I am able to get the best out of others			✓	2
I can motivate others	✓			1
I am able to manage conflict or disagreement		✓		2
People look at me as a leader			✓	3

STRESS MANAGEMENT				
I know what causes stress		✓		2
I am aware of my personal symptoms of stress		✓		2
I can use strategies to help me cope with my stress or other people's stress		✓		1

PERSONAL DEVELOPMENT PLANNING				
I am able to identify my personal goals		✓		1
I am a good judge of what my strengths and areas for development are		✓		2
I am able to identify opportunities for learning outside my course, e.g. clubs, societies, employment	✓			1
I am able to plan for my personal development		✓		1

Part 2 Technical Skills directly relevant to your course.

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Ability to test efficiency		✓		1
Ability to work in a shared environment		✓		2
Ability to work in an Agile environment		✓		2
Commenting code and making use of functions	✓			2
Ability to work with interfaces		✓		1
Ability to ask for help		✓		2
Ability to work with large amounts of data		✓		1
UML diagrams		✓		2
Coding	✓			1

Gabriel-Sebastian Visan
Part 1 Key Skills

SKILLS AREA	I CAN DO THIS WELL	OK, BUT I NEED MORE PRACTICE	I CAN'T DO THIS	PRIORITY DEVELOPMENT OF THIS SKILL 1 = very important, 2 = quite important, 3 = not important
ORGANIZATION OF LEARNING				
I have strategies to help me to plan and manage my time		X		2
I am able to effectively prioritise my tasks and activities		X		2
I am able to work to deadlines	X			3
I am aware of what makes my learning more effective (e.g. place to study, time to study etc)	X			

INFORMATION SEEKING SKILLS				
INFORMATION SEEKING SKILLS				
I am able to find a specific book or journal in the library using the on-line catalogue		X		1
I am able to use a variety of different sources to find information (e.g. journals. books, electronic resources)		X		1
I am able to access and search electronic resources (on-line databases, electronic journals CD-ROMs)	X			3
I am able to use search gateways on the Internet to find information	X			3
I am able to evaluate the information I find			X	1

READING AND NOTEMAKING				
I can decide which parts of a book I need to read	x			3
I have a system for recording where I find information (e.g. book, author, date)	X			3
I can select and use different reading strategies (e.g. skim, scan, in-depth)	X			3
I can make effective notes when reading		X		2
I can make effective notes when listening (e.g. during lectures)		X		2
I have a system for recording and storing my notes			X	1

WRITING SKILLS				
I can analyse assignment (essay, report etc) questions to determine what is expected		X		1
I understand the difference between an essay and report		X		2
I can produce a written plan to answer an assignment question		X		1
I can punctuate, use grammar and spelling correctly	X			3
I am confident I can express my ideas clearly in written form	X			3
I am able to adapt my writing styles to suit the appropriate media/audience	X			3
I understand the need to reference my work to avoid plagiarism	X			3

SPOKEN COMMUNICATION				
I am able to express my views verbally	X			3
I am confident speaking in front of a group of people	X			3
I can prepare, plan and deliver a presentation	X			3
I can use visual aids to support a presentation	X			3
I am able to listen to and appreciate the views of others		X		1

WORKING WITH NUMBERS				
I am competent in making simple calculations	X			3
I can present numerical information accurately	X			3
I can competently use a variety of numerical techniques (e.g. percentages, fractions, decimals)	X			3
I can interpret and present information in graphs and illustrations	X			3

WORKING WITH OTHERS				
I am good at working with other people	X			3
I am able to lead or organize a group		X		1
I know how to plan and manage meetings		X		2
I am good at co-ordinating a group such as storing and sharing files and documents			X	1
I am good at supporting other people	X			3
I am able to get the best out of others		X		3
I can motivate others		X		3
I am able to manage conflict or disagreement	X			3
People look at me as a leader		X		3

STRESS MANAGEMENT				
I know what causes stress	X			3
I am aware of my personal symptoms of stress		X		1
I can use strategies to help me cope with my stress or other people's stress	X			3

PERSONAL DEVELOPMENT PLANNING				
I am able to identify my personal goals	X			3
I am a good judge of what my strengths and areas for development are	X			3
I am able to identify opportunities for learning outside my course, e.g. clubs, societies, employment		X		1
I am able to plan for my personal development		X		1

Part 2 Technical Skills directly relevant to your course.

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Ability to test efficiency	X			2
Ability to work in a shared environment	X			1
Ability to work in an Agile environment		X		2
Commenting code and making use of functions	X			1
Ability to work with interfaces		X		3
Ability to ask for help		X		2
Ability to work with large amounts of data	X			1
UML diagrams	X			1
Coding	X			1