Department of Computer Science

Level 3 project allocation

Allocated Projects

Code	Supervisor	Second Marker	Working title	Allocated to	Suitable for
AJCS-2a	A.Sharkey	D.Walker	Achieving a goal:	Jade Slocombe	
AJCS-2b	A.Sharkey	G.Fraser	Achieving a goal:	Ke Xu	
AJHS-10	A.Simons	D.Sudholt	Babylon 5 Standalone Game Engine	James Marshall	
AJHS-11	A.Simons	D.Sudholt	Babylon 5 Multiplayer Game Engine	Adam Poulston	
AJHS-12	A.Simons	D.Sudholt	Babylon 5 Robot AI Game Engine	Benjamin Hawker	
DMR-4	D.Romano	F.Ciravegna	Panic in Crowd	Robert Chisholm	
DS-U5	D.Sudholt	P.Green	PublicCV.net	Kamran Ayaz Oglu Eyubov	
EV-2	E.Vasilaki	J.Marshall	The structure of dominance hierarchies	Andrew Ferris	
EV-3	E.Vasilaki	J.Marshall	Navigation in Mazes.	Svetlin Epitropov	
FC-4	F.Ciravegna	S.North	A Web tool for Citizen Science	Martin Aleksiev	
GJB-1	G.Brown	D.Romano	Computer-generated music videos	Matthew Raymond	
GJB-2	G.Brown	G.Fraser	Gait recognition using the Kinect	Christopher Hunt	
GJB-6	G.Brown	S.Maddock	A motorised panoramic 3D camera using the Lego Mindstorm and Kinect	Jake Glover	
GS-1	G.Struth	M.Gheorghe	Model Checking Games in SPIN	Mihai Popa-Matei	
GS-3a	G.Struth	M.Stannett	Programming the Atari Bubbles Game	Thomas Morley	
GS-3b	G.Struth	M.Stannett	Programming the Atari Bubbles Game	Jacques Coney	
GS-4	G.Struth	A.Simons	Implementing the Refinement Calculus in Isabelle/HOL	Jordan Milner	
JPB-1	J.Barker	P.Green	Pacman-playing Robot	Adam Petterson	
JPB-5	J.Barker	E.Vasilaki	Augmented Reality - Draughts Coach	Aaron Thompson	
JPB-6	J.Barker	G.Brown	Flash Photography Filtering (JB-6)	Raluca Lehadus	
JM-3	D.Walker	J.Marshall	Co-Evolutionary Algorithm Visualisation (any)	Balzhan Turlina	
JM-4	J.Marshall	G.Struth	Digital Librarian (any and ITMB)	Qianyu Wang	
KB-1	K.Bogdanov	F.Ciravegna	Information visualisation	Yineng Zeng	
KB-2	K.Bogdanov	R.Clayton	The scariest fairground ride App	Laurence Nicolaou	
KB-3	K.Bogdanov	A.Sharkey	Chain of questions Web site or App (possibly ITMB)	Xuechen Wang	
KB-4	K.Bogdanov	R.Clayton	Football memorabilia website	Rafail Zorzos	
KB-5	K.Bogdanov	M.Stevenson	European Roulette (possibly ITMB)	Adelina-Loredana Paul	
KB-9	K.Bogdanov	G.Fraser	Searchable activity database - App	Robert Spick	
LS-4	L.Specia	R.Gaizauskas	A price model for the post-editing of machine translation	Yaqing Zhang	
LS-5	L.Specia	S.North	: A method and tool to post-edit machine translation	Licheng Zhang	
MRH-4a	M.Hepple	L.Specia	Text Analysis of On-line Social Media	Chris Makoumbou	
MRH-4b	M.Hepple	L.Specia	Text Analysis of On-line Social Media	Yongmi Ma	
MRH-4c	M.Hepple	R.K.Moore	Text Analysis of On-line Social Media	Guneet Gill	
MPS-1	M.Stannett	N.Lawrence	Agent-based modelling of helicopter rotor wash in a sandy/dusty/snow-covered environment	Pavel Drozdov	AERO ONLY
NDL-2	N.Lawrence	M.Stannett	Machine learning for fitness monitoring in cycling with python	Timothy Slater	AERO
NS-1a	N.Sharkey	S.North	Automated Search and Classification of Serviced Robots	Yin Jiat Yong	

NS-1c	N.Sharkey	R.Clayton	News auto search and filtering website [exploration robots news only]	Ruoyang Wen
NS-1d	N.Sharkey	G.Fraser	Robotics in the military Web-based Project	James Egwu
PDG-1	P.Green	R.Gaizauskas	An Android Interface to Assistive Technology	Nijat Khaligov
PSM-1	P.McMinn	P.Green	Android/iOS App to control and display data from hardware	Jiawei Yao
PSM-3	P.McMinn	M.Gheorghe	Development of software on a Raspberry Pi to display waveforms from an ultrasonic system	Jonathon Bulbrook
PSM-4a	M.Gheorghe	P.McMinn	Creation of www.strainsonics.com	Georgios Erakleous
PSM-4b	M.Gheorghe	P.McMinn	Creation of www.strainsonics.com	Andreas Lefkatis
PSM-6	P.McMinn	A.Simons	Implement a PuSH (pubsubhubbub) system for real-time notification of document changes	Andrei Misarca
RHC-UG-5	R.Clayton	A.Sharkey	Algorithmic models of plant structure and shape	Yuheng Zhang
RJG-2	R.Gaizauskas	M.Stevenson	Building Translation Lexicons for Proper Names and Terminology from the Web	Nashrul Ahmad
RJG-4	R.Gaizauskas	M.Stevenson	Mapping Spatial References in Text using Google Maps	Kevin Lee
RKM-1	R.K.Moore	A.Sharkey	Voice-Controlled Robot Arm	Matthew Orme
RKM-5	R.K.Moore	P.Green	Market/Opinion Survey for Speech Technology Systems	Hui Li
RMS-1	M.Stevenson	L.Specia	Interpreting Identifiers in Programming Languages	Adam Dickinson
SCM-UG-2	S.Maddock	G.Fraser	Sketching crowd animation	Pavel Velkov
SCM-UG-3a	S.Maddock	N.Lawrence	Kinect the dots	David Dakin
SCM-UG-6a	S.Maddock	Y.Gotoh	Web-based digital tracing paper	Peter Heywood
SCM-UG-6b	S.Maddock	Y.Gotoh	Web-based digital tracing paper	Callum Cox
SDN-6a	S.North	E.Vasilaki	Student's Own Project - Title to be Discussed	Matthew Mcmahon
SAT-UG-12-5	S.Tucker	R.Gaizauskas	Twitter overload / interaction	Brittany Christopher
TC-1	T.Cohn	Y.Gotoh	computer vision to automatically detect what types of objects are present in the images	Carl Clegg
TC-2	T.Cohn	M.Stevenson	text analysis for extracting the key information from each document, e.g., the central topics, people or events being discussed	Thomas Cornish
TC-5	T.Cohn	M.Hepple	Who's being talked about? Resolving coreferential mentions in blog comments	Yao Chen
YG-6	Y.Gotoh	D.Sudholt	Video annotation analysis	Adam Marsh
STU-UG-PR	T.Cohn	M.Hepple	A Twitter user as a spammer (students own)	Patrick Rose
STU-UG-CS	G.Brown	Y.Gotoh	Automatic music notation for live drums (students own)	Christopher Sherlock
STU-UG-LC	S.Tucker	F.Ciravegna	An exploration of site interaction and site rendering (students own)	Linus Cash
STU-UG-JR	M.Stannett	R.Clayton	Video Steganography (students own)	James Ridgway
STU-UG-AS	F.Ciravegna	T.Cohn	Sentiment Analysis of Tweets using Nueral Network (students own)	Akash Srivastava
STU-UG-LMB	R.K.Moore	N.Sharkey	The Uncanny Valley and Matching Voices to Faces	Lianne Meah-Brabbins
STU-UG-KB	R.K.Moore	N.Sharkey	Search and Rescue Robotics	Karl Baker
STU-UG-MG	M.Gheorghe	J.Marshall	Simulated Evolution of Virtual Braitenberg like Vehicles	Michael Goddard

| STU-UG-RT | J.Barker | E.Vasilaki | Optical character recognition and subsequent translation of Egyptian Hieroglyphics | Robert Taylor | |
| STU-UG-SB | J.Barker | S.North | Automated crossword solver | Samuel Brown | |

Available Projects

Note: Aerospace and BioMedical students may only select projects marked as such in the 'Suitable for' column. Other students may also select these projects (unless they say e.g. 'Aerospace only'), but Aerospace/BioMedical students have first preference.

Code	Supervisor	Working title	Suitable for
AJCS-1a	A.Sharkey	Robots and facial expressions: What's the question?	
AJCS-1b	A.Sharkey	Robots and facial expressions: What kind of robot?	
AJCS-1c	A.Sharkey	Robot emotional expressions: the effect of experience?	
AJCS-1d	A.Sharkey	Robot facial expressions: Smiling or frowning?	
AJCS-1e	A.Sharkey	Face in the crowd:	
AJHS-1	A.Simons	The JWalk Assignment Marker	
AJHS-2	A.Simons	Export JUnit Test Suites from JWalk	
AJHS-3	A.Simons	Equivalence Partition Testing with JWalk	
AJHS-4	A.Simons	ReMoDeL Java Program Generator	
AJHS-5	A.Simons	ReMoDeL C++ Program Generator	
AJHS-6	A.Simons	ReMoDeL C# Program Generator	
AJHS-7	A.Simons	JAST XML Schema-Based Validation	
AJHS-8	A.Simons	JAST Object Marshalling to XML	
AJHS-9	A.Simons	JAST XSLT Transformations	
DMR-1	D.Romano	Agent-based simulation on the co-evolutionary of behaviour in organisations	
DMR-2	D.Romano	Brain/multimodal computer interface	
DMR-3	D.Romano	User Adaptable Virtual Environments	
DMR-5	D.Romano	Virtual Touch	
DMR-6	D.Romano	Gesture Interface	
DS-U1	D.Sudholt	Information propagation in networks	
DS-U2	D.Sudholt	Self-stabilisation and cut problems in networks	
DS-U3	D.Sudholt	Finding shortest paths with artificial ants	
DS-U4	D.Sudholt	Runtime analysis for memetic evolutionary algorithms	
EV-1	E.Vasilaki	Decision making in animals and humans	
EV-4	E.Vasilaki	Can you read someone s mind?	
EV-5	E.Vasilaki	Sheffield Crime Scene Investigation.	
EV-6	E.Vasilaki	Predict someone s income	
GF-UG-1	G.Fraser	Testing benchmark generator	
GF-UG-2	G.Fraser	Crowd-based mutation testing	
GF-UG-3	G.Fraser	Give me a better test	
GF-UG-4	G.Fraser	Grammar-based test input generation	
GS-7	G.Struth	tbc	
JD-1	J.Derrick	Compiling Z to SAL	
JD-2	J.Derrick	Compiling Z to SAL	
JD-3	J.Derrick	Compiling Z to SAL	
JD-4	J.Derrick	Compiling Z to SAL	
JD-5	J.Derrick	Compiling Z to SAL	
JD-6	J.Derrick	Compiling Z to SAL	
JM-1	J.Marshall	Learning Boolean Networks Through Automatic Experimentation (any)	
JM-2	J.Marshall	Optimal Collective Behaviour (any)	

JM-5	J.Marshall	Honeybee Waggledance Tracking and Decoding (any)	
JM-6	J.Marshall	Process Migration Strategies for Grid Computing (any)	
MG-1	M.Gheorghe	Crossover programming tool.	
MG-2	M.Gheorghe	P system tools.	AERO ONLY
MG-3	M.Gheorghe	P system tools.	AERO ONLY
MG-4	M.Gheorghe	P system translator.	AERO ONLY
MRH-1	M.Hepple	Storing Large Language Models for Statistical Machine Translation	
MRH-2	M.Hepple	Automated Recognition of Dialogue Acts	
MRH-3a	M.Hepple	Automatic Multidocument Summarizaton of News	
MRH-3b	M.Hepple	Automatic Multidocument Summarizaton of News	
MR-1	M.Rattray	Exploring biological clocks	
MR-2	M.Rattray	Visualisation tools for dynamic data	
MR-3	M.Rattray	Identifying changes in high-throughput sequencing datasets over time	
MR-4	M.Rattray	Gene regulatory network inference: the DREAM challenge	
MPS-2	M.Stannett	TBC	AERO ONLY
MPS-3	M.Stannett	TBC	AERO ONLY
MPS-4	M.Stannett	TBC	AERO ONLY
MPS-5	M.Stannett	TBC	AERO ONLY
MPS-6	M.Stannett	TBC	AERO ONLY
NDL-1	N.Lawrence	Transcription factor inference in bioconductor	
NDL-3	N.Lawrence	Motion capture data modelling in python	
NDL-4	N.Lawrence	Machine learning for modelling formula one races	AERO ONLY
NDL-5	N.Lawrence	Learning depth perception using kinect and python	
NDL-6	N.Lawrence	Gesture recognition using kinect and python	
NS-1b	N.Sharkey	TBC	
PDG-2	P.Green	An Android Interface to Assistive Technology	
PDG-3	P.Green	An Android Interface to Assistive Technology	
PDG-4	P.Green	An Android Interface to Assistive Technology	
PSM-0	P.McMinn	An SQL Parser Written in Java	
PSM-2	P.McMinn	Creation of user interface on an LCD touch Screen	
PSM-5	P.McMinn	An agent based real-time monitoring system & business rules engine for automatic scalability	
PSM-7	P.McMinn	Business Intelligence Infographic solution	
PSM-8	P.McMinn	Create Your Own Business	
RHC-UG-1	R.Clayton	Models of electrical conduction in the heart	BioMed only
RHC-UG-2	R.Clayton	Analysis of heart rate variability	BioMed only
RHC-UG-3	R.Clayton	Generating synthetic electrocardiograms	
RHC-UG-4	R.Clayton	Models of patterning in biological systems	
RHC-UG-6	R.Clayton	A simplified model of bladder function	BioMed only
RJG-1	R.Gaizauskas	Clustering Stories in RSS News Feeds	

RJG-3	R.Gaizauskas	Recognising and Relating Time and Event Expressions in Text	
RJG-5	R.Gaizauskas	Automatically Populating Wikipedia Infoboxes	
RJG-6	R.Gaizauskas	Dialogue Act Tagging of Information Seeking Dialogues	
RKM-3	R.K.Moore	Acoustic Flow	
RKM-4	R.K.Moore	Intonation and Linguistic Perplexity	
RKM-6	R.K.Moore	Control Structures for an Animatronic Tongue and Vocal Tract	BioMed only
RMS-2	M.Stevenson	Authorship Attribution	
RMS-3	M.Stevenson	Satire Detection	
RMS-4	M.Stevenson	Domain-specific Word Sense Disambiguation	
RMS-5	M.Stevenson	Sentence Similarity	
RMS-6	M.Stevenson	Information Extraction from Biomedical Documents	
SCM-UG-1	S.Maddock	Modelling bruises	
SCM-UG-4	S.Maddock	Kinect-based facial motion capture	
SCM-UG-5	S.Maddock	Augmented reality construction site movies. Reconstruction of the physical camera path in the virtual environment	
SDN-1	S.North	A Z to SAL Parser using ANTLR	
SDN-3	S.North	Assessment of quality using a Process Oriented approach and a Native XML database	
SDN-4	S.North	Assessment of quality using a Process oriented approach and a Non-SQL database	
SDN-5	S.North	Assessment of quality using a Process oriented approach and an Object database	
SDN-6b	S.North	Student's Own Project - Title to be Discussed	
SDN-7	S.North	An XML Minutes Database	
SDN-8	S.North	Querying a Native XML database with XQUERY and Java	
YG-1	Y.Gotoh	Visual analysis of crowded scenes	
YG-2	Y.Gotoh	Identification of meetings in news video	
YG-3	Y.Gotoh	Foreground identification in video	
YG-4	Y.Gotoh	Video highlight generation	
YG-5	Y.Gotoh	Action classification using SIFT features	
DCW-1	D.Walker	TBC	

Unallocated students

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Allocations by supervisor

M.Stevenson 1, M.Hepple 3, J.Marshall 1, R.Clayton 1, R.Gaizauskas 2, G.Struth 4, D.Romano 1, A.Sharkey 2, S.Maddock 4, N.Lawrence 1, A.Simons 3, E.Vasilaki 2, G.Brown 4, S.Tucker 2, M.Gheorghe 3, P.Green 1, Y.Gotoh 1, M.Stannett 2, T.Cohn 4, R.K.Moore 4, N.Sharkey 3, D.Sudholt 1, D.Walker 1, L.Specia 2, K.Bogdanov 6, F.Ciravegna 2, S.North 1, P.McMinn 3, J.Barker 5,

Allocations by Second marker

M.Hepple 2, M.Stevenson 4, J.Marshall 4, R.Clayton 4, R.Gaizauskas 3, G.Struth 1, D.Romano 1, A.Sharkey 3, S.Maddock 1, A.Simons 2, E.Vasilaki 3, N.Lawrence 2, G.Brown 1, M.Gheorghe 2, P.Green 4, G.Fraser 5, Y.Gotoh 4, M.Stannett 3, T.Cohn 1, D.Walker 1, N.Sharkey 2, L.Specia 3, R.K.Moore 1, D.Sudholt 4, F.Ciravegna 3, S.North 4, P.McMinn 2,