

City University of Hong Kong, CSE Summer Internship Program Project list (Program date: June 5 to August 5, 2017)

Departments	Project Title	No. of Vacancy
Architecture and Civil Engineering	Virtual Design and Construction with BIM and Internet of Things (IOT)	3
	Green BIM and Sustainable Buildings	3
	Augmented Reality and Virtual Reality on Mobile Devices	2
	Big Data and Information Analysis in Civil and Construction Engineering	4
	3D Printing for Prefabrication in Construction	3
	Exploration of Research and Knowledge Transfer in North America and Asia	4
Physics and Materials Science	Crystallization of bulk metallic glass and the associated changes of properties	1
	Effects of large current pulses on microstructures and properties of engineering alloys	1
Biology and Chemistry	Antibacterial mechanism of BING1, a novel fish antimicrobial peptide	1
	The roles of lipids in heart regeneration of zebrafish	1
	Molecular modeling of conformations of oligopeptides	2
	Toxicology -Next generation toxicity assessment	2
Biomedical Sciences	CRISPR-Cas9 genome engineered universal transfusable blood	1
	Anticancer	1
	Stem cell based cardiac repair	1
	Mechanisms of resistance in Akt signaling in breast cancer	1
	Synthesis, photophysical measurement, and in vitro study of peptide-based theranostic agents	1
	Development of a combo of photosensitizer and chemotherapeutic agent for dual therapy	1
	How spatial memory is encoded in the brain?	2
	How can we enhance the inhibitory circuit of the brain?	2
Computer Science	Modeling eye gaze on web pages — develop models for understanding how we look at web pages	1
	Improving web page usability -automatically rearrange elements on a webpage to improve its usability.	1
	Counting people in video — develop a real-time system to count the number of people in a video	1
	Object Saliency Detection (see http://www.cs.cityu.edu.hk/~rynson/projects/objects/ObjDetection.html for more information) good programming and mathematical skills is required	2
	Gamification of Mathematics for Personalized Learning	2
	Viral Marketing in Online Social Networks	2
	Human Genome Research	0
	General Education System for Exploring Human Genetics	5
	Multiobjective Optimization Research	5
	Bioinformatics and Computational Biology Research	Applications will be considered until the project(s) is/are filled
	Machine Learning and Its Applications (e.g. Deep Learning)	
	Data Mining and Its Applications (e.g. Government Data)	
	Text Mining and Its Applications (e.g. Internet Blogs)	
Network Analysis and Its Applications (e.g. Facebook)		

Departments	Project Title	No. of Vacancy
Electronic Engineering	Target Localization	1
	Frequency Estimation of Sinusoidal Signals	1
	Measurement of Isometric Torque and Muscle Contraction: An Animal Model	2
	Neuromuscular Bases of Finger Coordination	2
	Neuromuscular Coordination in Sports	2
	Music and Emotion	2
	Changes in Brain Network During Learning	2
	VLSI design for Tensor Computing	2
	Architecture design for Trusted Edge Computing	2
	FPGA design for Neural Prosthesis	2
Mechanical and Biomedical Engineering	New optical and ultrasound technology for brain imaging	2
	Ultrasound-assisted drug delivery to break the blood-brain barrier	2
	Structural Relaxation in Metallic Glass and Metallic-Glass Matrix Composite: From macro-to nano-scale	1
	Improving Fracture/Fatigue Resistance in Metallic Glass through Controlled Structural Evolution and Sample Architecture Design	1
	Bio-inspired structural materials design	1
	in situ Mechanical Characterization of 3-D printed microlattices	1
	Friction and wear for thin films	2
	Animate Fabrication of Soft Robots	1
Systems Engineering and Engineering Management	Web mining for depression monitoring	2
	Visual analysis of air traffic in the age of Big Data	1