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| **OBJECTIVE** | Looking for software development Engineer internship (Fall or Winter 2016) |
| **EXPERTISE** | Artificial intelligence, Machine learning, Automated planning, Java, Python |
| **INTERESTS** | Full stack web development, Intelligent agent, System design, Data analysis, Healthcare |

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| **PROJECTS** | **Intelligent Affective Assistance Agent for the Elders - Research Assistant**  *Computational Health Informatics Lab, University of Waterloo*   * Tracking on-going activities, providing affective assistance in a proper detail when the user lost in the context. * Propose an algorithm of hierarchical activities tracking using domain knowledge; Learn patient’s emotion and awareness dynamics based on Affect Control Theory; Design affective assistance mapping policies for the agent. * Skills: *Python, algorithms* | September 2015 to Present |
|  | **Human Activity Recognition using Smartphones**  *CS685 Machine Learning, University of Waterloo*   * Classifying six basic activities (walk, walk upstairs, walk downstairs, sit, stand and lay) using signals from smartphone accelerometer and gyroscope. * Implement three classifiers K-nearest neighbors (KNN), Support vector machine (SVM), and Hidden Markov Models (HMM). Analyze classifier performance. * Skills: *MATLAB, machine learning* | January 2016 to April 2016 |
|  | **BBM Protected and PetalMD Integration for Physician Schedule Status Exchange**  *CS792 Data Structures and Standards in Health Informatics, University of Waterloo*   * Realize physician schedule status secure exchange between the BBM protected and the PetalMD with the help of the Mirth Connect integration engine. * Develop a simulated PetalMD with basic server and client functions; Provide API for the Mirth Connect for information exchange; Channel design in Mirth Connect for petalMD and Mirth communication. * Skills: *Full-stack web development, AngularJS, JavaScript, Mirth Connect* | January 2016 to April 2016 |
|  | **Gesture Recognition for Adding Sound Effects**  *CS889 Human-Computer Interaction (HCI), University of Waterloo*   * Generate real-time sound effects for on-going gestures did in front of a Kinect. * Implement gesture recognition algorithm (DTW based KNN); design a sound effect triggering strategy considering the gesture duration. * Skills: *Machine learning, Dynamic programming, Kinect for Windows (SDK) 1.0* | September to December 2015 |
|  | **Earthquake Detection in Tweets using Apache Storm**  *Computational Intelligence Lab, Kobe University, Japan*   * Report “earthquake happed” when relevant tweets ration reach a threshold. * Design a topology with one spout and two bolts. Implement a SVM based bolt to classifier the split tweets from the split bolt. * Skills: *Machine learning, Apache Storm, Java* | November 2014 |
|  | **Emergency Response - Research Assistant**  *Image Processing and Intelligent Control Lab, Huazhong University of Sci. and Tech.*   * Build a comprehensive emergency collaborate response network with multiple hierarchical organizations using snow-ball process * Propose a network analyzing method to obtain key tasks & relations and shared resources of many departments. * Propose a faster algorithm for emergency response plan generating with time & resource constraints. * Skills: *Java, C++, LISP, MySQL, MATLAB, Hierarchical Task Network Planning* | September 2012 to June 2015 |

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| **EDUCATION** | **Master of Mathematics, Computer Science**  *University of Waterloo, Waterloo, ON, Canada*   * GPA: 92 / 100 * Courses: CS686 Artificial Intelligence, CS685 Machine Learning,   CS886 Affective Computing, CS889 Human-Computer Interaction  CS792 Data Structures and Standards in Health Informatics   * Teaching Assistant for CS137 and CS136, focusing on C, Scheme, and Data structures | September 2015 to Present |
|  | **Master of Science, Systems Engineering**  *Huazhong University of Science and Technology (HUST), Wuhan, China*   * GPA: 92.8 / 100 * Research on emergency response task planning (automated planning); research on emergency response task network analyzing (Social Network Analyzing) * Teaching Assistant for Production Planning & Scheduling, covering Job-Shop, Project scheduling and meta-heuristics. | September 2012 to June 2015 |
|  | **Bachelor of Engineering, Logistics & Systems Engineering**  *Huazhong University of Science and Technology (HUST), Wuhan, China*   * GPA: 88.9 / 100 * Courses: C, Java, C++, Data Structures, Database, Operations Research, Inventory management, Transportation. | September 2008 to June 2012 |

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| **PUBLICATIONS** | * **D. Wang**, C. Qi, H. Muñoz-Avila, H. W. Wang, “Hierarchical Task Network for Emergency Response Task Planning with Resources and Temporal Constraints”, *Knowledge-Based Systems*, 2015. (*Under Review*) * **D. Wang**, C. Qi, H.W. Wang, “Improving emergency response collaboration and resource allocation by task network mapping and analysis”, In *Safety Science*, Volume 70:9-18, 2014 * **D. Wang**, C. Qi, H.W. Wang, "HTN based carrier aircraft task planning", In *12th national youth management science and system science conference*, Xiamen, China, Nov. 2013. (*In Chinese*) * C. Qi, **D. Wang**, “Dynamic Aircraft Carrier Flight Deck Task Planning Based on HTN”, In *the 8th IFAC Conference on Manufacturing Modelling, Management and Control*, France, Mar. 2016. |

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| **ACTIVITIES** | * Canadian Celebration of Women in Computing, **CAN-CWIC 2016**, Ottawa. | Jan. 22-23, 2016 |
|  | * **Japan-Asia Youth Exchange** Program in Science, Kobe University, Japan. | November 2014 |
| **AWARDS** | * **David R. Cheriton Graduate Scholarship**, Prestigious Scholarship, University of Waterloo. | 2015-2017 |
|  | * **National Graduate Scholarship**, Granted by the Ministry of Education of P.R. China. | 2014 |
| **EXPERTISE** | * Hiking, Yoga, Cooking, Jogging, Drawing, Writing. | |