

# HANSHANG LI

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## TECHNICAL STRENGTHS

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| <b>Computer Languages</b>    | C, C++, Python, Java, HTML, SQL                                      |
| <b>Platform and Tools</b>    | Xcode, Matlab, Eclipse, Vim, OPNET, NS-2, Linux, MySQL               |
| <b>Proficient Background</b> | Algorithm, Networks, Data Structure, Machine learning, Data Analytic |

## EXPERIENCE

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| <b>University of North Carolina at Charlotte</b><br><i>Research Assistant</i> | August 2014 - Present<br><i>Charlotte, NC</i> |
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- Improved data analytics of social network dataset of D4D cellular networks and Gowalla data through statistics to learn and predict people mobility patterns.
- Implemented online learning of data quality using Combinational Multi-armed Bandit.
- Implemented data aggregation of mobile crowdsensing through multiple statistics methods.
- Designed and implemented algorithms and systems for Mobile Crowdsensing using C++ and Matlab.
- Designed and implemented algorithms for big data collection through opportunist networks using C++.

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| <b>Harbin Institute of Technology</b><br><i>Research Assistant</i> | August 2012 - July 2014<br><i>Harbin, China</i> |
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- Designed and implemented CDMA based MAC protocols and system for Wireless Sensor Networks using OPNET, NS-2 and Matlab.
- Designed and implemented algorithms for aircraft path planning using Matlab and C++;
- Designed and implemented algorithms for networks on chip using C;
- Developed audio and video transmission through Zigbee sensor networks using Vim and Modelsim.

## PROJECT

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| <b>Implementation of standard network protocols</b> | August 2012 - July 2014 |
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- Implemented ARP, ICMP and TCP/IP structure in Java-Eclipse environment.
- Implemented routing protocols such as RIP, BGP and OSPF in Java-Eclipse environment.
- Implemented standard security algorithms including BM, KMP, KR and AC in C++-VS environment.

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| <b>Development of instant chat software</b> | August 2012 - July 2014 |
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- Designed and implemented instant chat software in UDP and TCP respectively in Java-Eclipse environment.

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| <b>Database system implementation</b> | August 2014 - July 2015 |
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- Implemented Database management system and operated using MySQL.

## EDUCATION

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| <b>University of North Carolina at Charlotte</b><br>Ph.D. in Computer Science<br>Overall GPA: 3.92 | <i>December 2017(expected)</i> |
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| <b>Harbin Institute of Technology</b><br>M.S. in Computer Science<br>Overall GPA: 3.2 | <i>July 2014</i> |
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