

## EXPERIENCE

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- **The University of Auckland** Auckland, NZ  
*Research Assistant on MPAid (Maori Pronunciation Aid)* Nov. 2015 - Mar. 2016
  - **Research & Design:** Took over the project and studied the associated background knowledge. Cleaned the legacy code and re-designed the architecture as well as the UI.
  - **Speech Recognition:** Built the Maori language model by an open-source toolkit named HTK. Automated the language model building process by Perl and batch. Improved the recognition rate from 44.6% to 80.4%.
  - **Evaluation & Feedback:** Implemented a score board to record users' pronouncing performance, analyse the recognition results and provide valuable feedbacks.
  - **Media:** Integrated the NAudio library to play and generate audio recordings. Embedded the VLC player to play the videos of pronouncing demonstrations.
  - **Document:** Uploaded and managed the source code on Github. Wrote the project wiki and kept releasing new versions.
  - **Future Plan:** Wrote a detailed proposal about migrating the MPAid from desktop to mobile and server-hosting.
- **The Second Academy of China Aerospace** Beijing, China  
*Leader of iTos (Intelligent Transmitting Online System) team* Apr. 2013 and Feb. 2015
  - **Design:** Designed the iTos, which can dynamically change the quality of transmitted media according to the bandwidth.
  - **Implementation:** Re-wrote the network component by IOCP to improve the parallel transportation. Built the media decoding/encoding/transmitting core by ffmpeg and RTSP protocol. Implemented the system snapshot function to recover node server from fatal errors.
  - **Promotion:** Promoted and deployed the iTos to 3 military bases.
  - **Team Building:** Built an outstanding team who won the prize "the excellent team of 2014".

## PROJECTS

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- **The Getskills Website** The University of Auckland  
*An online education employment website developed with C# and running on microsoft Azure server for a New Zealand company named Getskills.*
- **The MPAid (Maori Pronunciation Aid)** The University of Auckland  
*A software on .Net platform with Maori speech recognition and evaluation system to help Maori speaker improve their pronunciation.*
- **The iTos (Intelligent Transmitting Online System)** The Second Academy of China Aerospace  
*A system with a high performance in massive media distributing and delivery.*
- **Children Cognitive System** The Beihang University  
*An education platform which applied AR (Augmented Reality) and VR (Voice Recognition) technologies to improve the interaction between computers and children, aiming to help pre-educational children effectively learn some abstract objects like thunder, wind and fog.*

## EDUCATION

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- **The University of Auckland** Auckland, NZ  
*Master of Engineering in Software Engineering; GPA: 7.75/9.00* Aug. 2015 - Jun. 2016
- **The Beihang University** Beijing, China  
*Bachelor of Engineering in Software Engineering; GPA: 3.71/4.00* Aug. 2009 - Jul. 2013

## PROGRAMMING SKILLS

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- **Languages:** C/C++/C#/Java/PHP/Javascript/HTML/CSS/Perl **Platforms:** Windows/Linux