

# Arabelle Hou

## SKILLS

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Languages	Web Development	Operations/Systems	Other
<ul style="list-style-type: none"><li>• Python</li><li>• Java</li><li>• C</li><li>• C++</li></ul>	<ul style="list-style-type: none"><li>• JavaScript</li><li>• HTML5</li><li>• CSS</li><li>• Django</li><li>• Node.js</li></ul>	<ul style="list-style-type: none"><li>• Apache Kafka</li><li>• Docker</li><li>• Amazon Web Services</li><li>• Git/Github</li><li>• Windows/Linux</li></ul>	<ul style="list-style-type: none"><li>• Deep learning</li><li>• Load testing</li><li>• Android mobile development</li></ul>

## TECHNICAL WORK EXPERIENCE

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**Salesforce** **May, 2017 – Aug., 2017**

***Software Engineering Intern***

- Helped manage over 1500 Kafka hosts over multiple data centers to provide a common publish-subscribe platform for customers
- Added features to a Kafka topic deploying tool to help reduce over 300 lines of configuration, simplify topic creation/deletion, and modify topic access control lists (ACLs) to enable topic permission changes
- Added a service to monitor Kafka consumer groups and send offset and lag data to be viewed in a dashboard

**Nippon Telegraph and Telephone (Media Intelligence Labs)** **Sept., 2016 – Dec., 2017**  
***Intern***

- Trained deep neural networks (DNN) for acoustic parameter regression modeling to create a Chinese Text-To-Speech (TTS) system
- Process and analyze more than 10,000 files of linguistic data provided by a colleague as model input
- Problem solve issues with overfitting and processing speed to improve the accuracy of the model and enhance speech naturalness/comprehension
- Work on practice tasks in speech recognition to classify male and female speech using linguistic features such as Mel-cepstral coefficients and a classification DNN model

**Demonware** **Jan., 2016 – Aug., 2016**

***Software Developer Intern (Data Pipeline)***

- Worked with Python and C++ on server side applications to continuously deliver data between clients (e.g. gamers) and customers for game statistics
- Deployed applications such as Apache Kafka and Statsd using Docker containers in Amazon EC2, working exclusively in a Linux environment and occasionally using Vagrant virtual environments
- Implemented a load-testing framework with technologies such as Locust, Gevent, and APScheduler which is capable of simulating 5000+ requests per second

**UBC** **Sept., 2015 – Dec., 2015**  
***Teaching Assistant*** **Jan., 2017 – Apr., 2017**

- Taught CPEN 221 (Principles of Software Construction) and CPSC 221 (Algorithms and Data Structures)
- Provided online and in-person instruction in topics such as abstraction and specification of software, testing, verification, abstract data types, object-oriented design, type hierarchies, concurrent software design, algorithm analysis methods, searching and sorting algorithms, and graphs
- Hosted office hours, during which I demonstrated problem solutions, as well as graded exams, graded assignments, and invigilated exams

**Paragon Testing Enterprises****May, 2015 – Aug., 2015****Junior Software Developer Intern**

- Integrated the Adobe Content Server (ACS) into the company's client/internal web applications and their Microsoft SQL Server database, after setting up a MySQL database and an Apache Tomcat server to host the ACS on a CentOS virtual machine
- Wrote JavaScript and C# code to fix issues in production for the online testing products offered by the company

**TECHNICAL PROJECTS**

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**UBC Launch Pad****Sept., 2015 – Aug., 2016****Senior Web Developer/Tech Lead**

- Collaborated with a group of 5-7 students to develop web applications, following sprints and industry software development practices
- Worked with technologies such as MongoDB, Google Analytics, SASS, Django, and JavaScript/Node.js.
- Worked on a housing analytics app implemented in Python and JavaScript to display housing statistics in Vancouver

**UBC Thunderbots Football Club****Sept., 2014 – Aug. 2015****Software Team Member**

- Collaborated with UBC's Thunderbots to work on an autonomous robot soccer team that was entered in the Annual International RoboCup Competition and Conference
- Wrote code to successfully complete five new member Challenges assigned by the team, utilizing C++ code and AI simulation (grSim) in a Linux (Ubuntu) environment

**nwHacks – EcoGEM****Mar., 2015****Hackathon**

- Participated with two students to produce an Android app written in Java code that monitors a user's automobile efficiency, rewarding them with coupons when a monthly goal is achieved
- Implemented the Android app using the Mojio API, used to create apps for the Mojio device that plugs into the car's On-Board Diagnostic (OBDI-II) port

**OTHER EXPERIENCE**

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**Under the GUI – Instructor****Feb., 2016 – Jun., 2016**

- Taught GameMaker and rudimentary coding concepts such as variables, functions/scripts, logic expressions, and simple data structures to children from ages 7-12
- Worked with kids to create a basic first-person or street fighter-style game using GameMaker by the end of the class term

**EDUCATION**

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**University of British Columbia****Bachelor of Applied Science / Computer Engineering**

Sept., 2013 – May, 2018 (expected)

- Eric P. Newell Leadership Award in Engineering (2015)
- James Yan Award in Electrical and Computer Engineering (2015)
- Martin Sikes Memorial Service Award in Electrical and Computer Engineering (2015)

**University Transition Program****High School Diploma**

Sept., 2011 – Jun., 2013

- Early entrance to university
- Condenses a five year high school curriculum into two years