SHI CHENG

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EDUCATION

08/2015- Master of Science, Georgia Institute of Technology, Atlanta, U.S.A

05/2017 - Major: Music Technology

- GPA: 3.68/4

09/2011- **Bachelor of Engineering**, Harbin Institute of Technology, Harbin, China

06/2015 - Major: Electronic and Information Engineering

- Average Score: 85.44/100

HONORS AND AWARDS

2017	Honorable Mention at 2017 Guthman/Moog Hackathon
2012	Second-class People's Scholarship at Harbin Institute of Technology
2011	Third-class People's Scholarship at Harbin Institute of Technology

WORK EXPERIENCE

06/2017- Full Stack Software Engineer, at National Cash Register (NCR)

present

- Member of the online ordering group, working in a Scrum team closely with product owners and designers to provide web solution for customer loyalty program
- Build fast, highly responsive web apps from the backend to the frontend

05/2016- Full Stack Web Developer, at Varidada Inc. (remote)

01/2017

- Full stack developer of a music technology startup, building an online music jamming and collaboration platform
- Implemented key functionalities such as audio mixing, searching, onsite notification
- Publicized the project on social media, and the project has gained its first user group of more than 100 musicians

05/2016- **Web Developer Intern**, at The Spark Group

08/2016

- Developed and customized WordPress themes to build websites for customers from various fields
- Fixed remaining issues for past websites, especially those related to layout and responsive display

PROJECT EXPERIENCE

10/2016- **Sound hockey:** A web based interactive environment for sound design and parameter

04/2017 visualization

- Master's project researching on the sound effect of a semi-chaos audio system
- Maps physical position to sound parameters to display the relationship between parameters and sound effects. Provides and generates rich sound effects

04/2017 **Arduino based electronic bagpipe:** Honorable mention project of Guthman/Moog

Hackathon, 2017

- Member of a 5 people team

- In charge of the architecture of the project, implemented robust connection between Arduino, Moog synthesizer and MaxMSP on both software and hardware side
- Implemented the functionality of arpeggiator for the electronic bagpipe

09/2017- **Water instrument:** An interactive music installation using water as user input

12/2017

- Individual project for design and implementation of an interactive music system that allows input through tactile interaction with water
- Synthesized the sound of water and raining from scratch

01/2016- EarSketch: A multimedia education tool funded by National Science Foundation

05/2016

- Graduate assistant for a project to teach children basics of computer science by making music
- Implemented the feature for sharing and importing scripts
- Cleaned up web user-interaction based on the mockups

09/2017- Quantitative piano performance analysis

12/2017

- Course project for Computational Music Analysis completed by a two-person group
- Extracted audio features from the same Chopin piano piece performed by 22 pianists, then analyzed and clustered the data to compare the similarities and differences of various interpretation of a certain piece

01/2017- Traffic prediction system based on traffic and weather database

05/2017

- Course project for Data Analysis and Visualization. Member of a 6 people team.
- Dev lead for software development and implementation. Wrote scripts to scrape data from GDOT database and Weather Underground. Implemented user interface that allowed user friendly option and see prediction result given by dynamically generated graphics.

02/2014- Water flow alarm

04/2015

- Prototyped an ultrasonic water flow alarm. Member of a 3 people team.
- Participated in fundamental preparation and micro-controller programming
- Set up a basic circuit on breadboard and conducted usability tests

02/2014- **Domestic portable 3D printer**

04/2015

- Researcher at the 3D Printer Lab of Harbin Institute of Technology
- Helped maintaining software program of the 3D printer's core controller

ACTIVITIES

2016-2017	Performer at Listening Machines concert (11 th , 12 th)
2016-2017	Volunteer at Guthman Instrument Competition (2016, 2017)
10/2016	Participant at 2016 Georgia Tech Convergence Innovation Competition
04/2016	Competitor at 2017 Guthman/Moog Hackathon
03/2016	Volunteer at the 2 nd Web Audio Conference

SKILLS

Programming Language: JavaScript (proficient), Python, C, C#, MATLAB

Web/Software: React, Redux, GraphQL, NodeJS, AngularJS, VueJS, WordPress, Web Audio API,

SQL, GIT, etc.

Music Related: MaxMSP, LogicX, Cubase5, Adobe Audition, etc.

Project Management: JIRA

Other: Arduino, Photoshop, Final Cut Pro X
Specialty: Piano(advanced), absolute pitch