

# Shen Huang

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## SELF ASSESSMENT

- Over 20 years of programming experience, solid hands-on skills, brilliant and creative.
- Self-motivated, quick learner, passionate in hands on projects and up to date to the latest trends in technology.
- Solid understanding in Algorithms, Machine Learning, Software Engineering, Technical Journalism and many other tech related fields.
- Able to work both independently and collaboratively.
- Able to design efficient software systems with considerations in hardware, infrastructure and network security.

## EDUCATION

**California State University, Northridge**, Northridge, California, USA

June 2020 (Expected)

MS in Computer Science

**Queens University**, Kingston, Ontario, Canada

June 2015

BS in Electrical Engineering

## PROGRAMMING SKILLS

**Backend & Software Development:** C# (.NET Framework), Java (Apache Tomcat), Python, Node.js, Go.

**Front End & Mobile Development:** HTML/CSS/JavaScript, Flutter (Dart), Unity (C#), Ionic, Angular.

**Cloud Development:** AWS, GCP, MySQL.

**Automated Testing:** Selenium, Java Robot.

**Embedded Systems:** Arduino, C, Assembly, VHDL.

## DATA SCIENCE SKILLS

**Programming Languages:** Octave, MATLAB, Python, Julia

**Data Science Frameworks:** scikit-learn (auto-sklearn), Keras (AutoKeras), WEKA (Auto-WEKA)

**Data Science Knowledge:** Probability & Statistics, Machine Learning, Deep Learning

**Cloud Frameworks:** GCP, AWS (SageMaker, Rekognition)

**Visualization Frameworks:** Matplotlib, Excel, Tableau

## OTHER SKILLS

**Languages:** English (Native), Mandarin (Native).

**Journalism:** Curated Writer at Medium

## WORK EXPERIENCE

**Technical Journalist, Medium**

Since May 2018

- Writer at Towards Data Science, freeCodeCamp.org, Frontend Weekly, Hacker Noon and The Startup.
- Curated articles in Machine Learning and Artificial Intelligence section on Medium.
- Articles published on front page of Pen Test Magazine upon request.
- Articles translated and published by 机器之心.

**Graduate Assistant, California State University, Northridge**

September 2018 - December 2019

- Performed research tasks such as literature review and paper formatting with LaTeX.
- Assisted the professor with research tasks including code production.
- Created several applications with HTML/CSS/JavaScript & Node.js to collect data on mobile devices.
- Wrote automated test cases with Selenium.

**Project Manager, California State University, Northridge**

June 2019 - December 2019

- Coordinated meetings and helped other Master and Ph.D students in their research projects.
- Solved issues in Cloud ML, helped other students up to date with the trend of the field.

**Teaching Assistant, National Science Foundation**

January 2019 - December 2019

- Helped students in class to understand Cloud and Database.
- Helped students in class to understand Data Science models and workflow.

**Software Engineer Internship, CETC Motor**

July 2013 - September 2013

- Worked on a compiler to support floating point calculation by modifying the lexical and syntax analyzer.
- Added English and Chinese support for help documents.

### **Electrical Engineer Internship, State Grid Corporation of China**

July 2012 - September 2012

- Designed and implemented a Java application to help managing error reports.
- Collaborated with six other engineers to validate the integrity of the communication system between the distribution station and the headquarters.

## **PROJECTS**

### **Research Related Projects**

- Implemented a data collection mini-game interface with HTML5 Canvas, backend in both Node.js and Golang.
- Created a Social Media page in HTML/CSS/JavaScript to collect data, tested the social media page with Selenium.

### **Translation App**

- Built a translation app in Flutter with Firebase backend, which compiles into both Android and iOS.
- Supports 20+ language translation and a chat room.
- Automated application testing with Selenium

### **Web Games**

- Design and implemented several games and hide them as Easter Egg inside [<https://shenhuang.github.io/>]
- Created Unicorn Shoot and Cookie Munch solely with Emoji and div elements, which will activate when the user click on the Emojis on the page. Embedded the Space Shooting game inside Development Console via console log.
- Constructed the Game Engine from scratch, including Collision Detection, Procedural Generation, and Artificial Intelligence, as there are yet no available Game Engine for Emojis and Development Console.
- Collaborated with Musicians for music and sound effects.

### **Mobile Games**

- Built multiple games in Unity for mobile platform, utilizing touch screen inputs, accelerometers, gyroscope, cameras and VR developments.
- Built a grid-based underground mining lava run game with procedurally generated level and lava automaton, mobile friendly with many UI design improvements built on easily adjustable custom UI objects.
- Built multiple multiplayer games with HTML5 and Unity front end with C# .NET Framework, Node.js backend. Familiar with Unity LBS, DynamoDB and Buckets in both GCP and AWS.
- Collaborated with people in other disciplines such as musicians, artists and writers.

## **AWARDS**

### **Queens ECE Annual Robot Competition, 1<sup>st</sup> Place**

- Designed a slam-dunk robot, code based on Arduino. Robot moves and grabs with servo motors utilizing Pulse Width Modulation. Robot senses the environment through touch sensor and infrared distance sensors, and therefore was designed to have a close loop control system to adjust the speed for optimal performance.

### **Grants from National Science Foundation**

### **Curate Articles on Medium**

### **CEMC Certificate of Distinction**

- Math competition held by University of Waterloo.

### **Qualification Round, Google Code Jam**

- Did not participate in the following rounds due to conflicts with schoolwork.

## **SOCIAL ACTIVITIES**

### **Teach Access of Silicon Valley**

- Learned about accessibility and how companies in Silicon Valley is currently working on it.
- Made several connections in the field who is interested in the same thing.

### **Space Computing Conference**

- Conference featuring Vint Cerf, Vice President of Google, Father of Internet.
- Presented a publication on Procedural Generation of Terrain at Planetary Scale upon request.