Shen Huang

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EDUCATION
California State University, Northridge, Northridge, California, USA   September 2017 - June 2019 (Expected)
MS in Computer Science
Queens University, Kingston, Ontario, Canada   June 2015
BS in Electrical Engineering

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, MongoDB, MySQL.
Automated Testing: Selenium, Java Robot.
Embedded Systems: Arduino, C, Assembly, VHDL.

WORK EXPERIENCE
Graduate Assistant   Starting September 2018
- Assisted the professor with research tasks including code production.
- Created several applications with HTML/CSS/JavaScript & Node.js to collect data on mobile devices.
- Helped students in class to understand Cloud and Database.

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 Works
- Implemented the 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.

Easter Egg 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, they activate upon the user click on the Emoji 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.
- Improved complexity of real time algorithms to O(1), including information inside fog of war only available on the server side. Implemented AI algorithms such as min-max tree and state machines. Exposed to algorithms such as A* Search, Monte-Carlo search and Deep Q Learning.
- Collaborated with people in other disciplines such as musicians, artists and writers.

Queens ECE Annual Robot Competition, 1st 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.