BHAVIN SHAH

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EDUCATION

University of Southern California (Class of 2021) — Los Angeles, CA
Computer Science (Games) — GPA: 3.50

- Data Structures, Algorithms, AI, Game Engines/Prototyping/Programming, Linear Algebra

Glendale Community College — Glendale, CA

- Electronics, Public Speaking, Computer Networks & Security — GPA: 4.0

WORK EXPERIENCE

USC Creative Media & Behavioral Health Center — Los Angeles, CA
Lead Engineer — August 2019 – Present

- Developing a mixed-reality shoulder rehabilitation experience involving Arduino-controlled exercise equipment connected to a PC game written in C++ with Unreal Engine

Jet Propulsion Laboratory — Pasadena, CA
Data Science Intern — May 2018 – August 2019

- Improved runtime and memory usage of Mars terrain image captioning model using quantization and network pruning in Tensorflow Lite with Python
- Wrote C++ scripts and compiled libraries to deploy models on spacecraft computer emulator
- Assisted with development and validation of convolutional and recurrent neural nets (RNNs) in Python/Keras for predicting motor energy consumption from imagery and attitude data from Mars rover

Cybersecurity / IT Intern — June 2016-August 2017

- Developed cybersecurity visualizations in d3.js and the Splunk data platform
- Designed a digital signage solution to facilitate corporate communication using PHP & JavaScript
  - Deployed it to the company's new internal OpenStack private cloud with automated server build, maintenance, and test scripts written in Bash that reduced need for human oversight

USC Signal Analysis and Interpretation Lab — Los Angeles, CA
Research Assistant — January 2018 –December 2018

- Developed RNNs in Python/Tensorflow to predict acoustics from MRIs of vocal chords

EXTRACURRICULAR PROJECTS

- Developed dialogue import tool and gameplay mechanics for a PC narrative game using Unity Engine in C#, commercial release in late 2019 — 2018 - 2019
- Developed an internet-connected smoke detector using 3D printing, smoke/CO sensors, ESP8266, and a Java app in Android Studio; won 1st Place in the Aerospace Corporation Science Fair — May 2017
- Wrote molecular simulations for battery electrolytes at Caltech Summer Research Program using LAMMPS and analyzed data with Tcl scripts and Matlab — Summer 2015

SKILLS

Tools: TensorFlow/Keras, Unity & Unreal Engine, Git, Linux (Fedora/Ubuntu), Maya, Matlab, Scalr Orchestration, Apache Web, Android Studio, Perforce, Visual Studio & Eclipse

Languages: C++, C#, Java, JavaScript, Python, PHP, HTML, MySQL, Bash Scripting

VOLUNTEER EXPERIENCE

Office of Assemblyman Mike Gatto — Summer 2015

- Managed legislative database, took constituent calls, and wrote letters to the community

AWARDS

- Viterbi Trustee Scholar (Full-tuition scholarship) awarded to top 3% of incoming class — March 2017
- Regional finisher in nationwide Air Force CyberPatriot cybersecurity competition — 2016/2017