

# STEVEN VENTURA

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## SOFTWARE ENGINEER

Computer Engineering graduate experienced in developing software and writing scripts that enhance productivity and efficiency. Quick learner with proven ability to build and manage successful team players.

### Core Competencies

Software Development • Team Management • Hardware Development • Application Design  
Verilog • Java • C++ • Linux • Lua • OpenGL • JavaScript • MATLAB • LabView • OOP • ROS

## EDUCATION

2017

### UNIVERSITY OF HOUSTON

HOUSTON, TX

Bachelor of Science, Computer Engineering

### Select Projects:

- Used Verilog to code Altera Cyclone IV FPGA game featuring full color, textures, and custom font support on VGA display; utilized Java app to reformat source files for compatibility; course grade: A.
- Wrote Simon Memory Game in LabView; completed project 2 months before deadline.
- Utilized Tiva-C microcontroller to create embedded system for wall-following, line-reading embedded bot. Added LCD display for recreational purposes (not required by professor) that showed sprite files created/precompiled from Java app with custom paint UI. Placed 2<sup>nd</sup> in end-of-semester race.
- 2<sup>nd</sup> place winner of annual NASA Swarmathon Robotics Competition; earned \$3,000 prize.
  - Used ROS, OOP principles, and State Machines to guarantee reliable collector-rover. 6 Swarm robots communicated following ROS standardized robotics interface via WiFi.
  - Delegated tasks to 4 team members; monitored progress and completion of tasks.
  - Served as only team representing University of Houston; competed against 19 teams across U.S.
- Created 3D OpenGL first-person, textured Java maze game using LWJGL and 3D OpenGL visualization of Conway's Game of Life.
- Implemented Dijkstra's shortest path algorithm for AI in Bomberman Java game.
- 2D Java game: built mapmaker client from scratch to draw map, add enemies, etc. to game; saves to file in predefined formats. Features TCP/IP Socket multiplayer support, co-op, and PvP modes.

2016

### WEARABLE COMPUTER

HOUSTON, TX

#### Software/Hardware Developer

- Charged with designing all applications for augmented reality startup company.
- Collaborated with team member to assemble integral hardware/defined hardware layout with part to part communication strategies for 3D-printed headset.
- Incorporated Raspberry Pi with Arduino 101 for peripherals in 3D-printed headpiece with small computer screen; prototyped handheld mouse that utilized accelerometer and gyroscope to move cursor.

## TECHNICAL

- Verilog VHDL, Arduino, Java, C, C++, JavaScript, Linux, Lua, OpenGL, MATLAB, LabView, ROS, OOP

## ACHIEVEMENTS

### Eagle Scout, Boy Scouts of America (2012)

- Collaborated with Katy Home Savers to lead 24 members in multi-phase property reparation for in-need local (2012).

**2<sup>nd</sup> Place Winner**, NASA Swarmathon Robotics Competition, \$3,000 prize.