Johnny Tran

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Portfolio : johnnytranac.github.io

Education

University of California, Irvine — Irvine, CA
Bachelor of Science in Computer Engineering — *Sep. 2017 – Jun. 2021*

Technical Skills and Languages

Developer Tools: Git, IntelliJ, PuTTY, Visual Studio, MySQL
Programming Languages: Assembly, C, Java, Python, Verilog, VHDL, SQL

Projects

Chess Simulation | *C, PuTTY* — Jan. 2019 – Feb. 2019

- Team collaboration to replicate a Chess game application and official rules in C language
- Allowed players chosen color for turn player's moves
- Implemented an AI opponent for Player vs. Computer at various difficulties
- Connected GitHub to PuTTY SSH client to append team changes and run playthroughs
- Reached semifinals (top 4) before elimination amongst class competition of 16 teams

Messaging Application | *C, PuTTY* — Feb. 2019 – Mar. 2019

- Team collaboration to develop a messaging application in C language for registered users who were logged into the server regardless of location
- Implemented a friend system in which users can search for other users, friend them, and chat with one another
- Recorded encrypted log data of registered users and their friend list, all automatically updated to GitHub

Tetris Android Game Application | *Java* — Apr. 2019 – May 2019

- Developed a game in Java language to replicate official Tetris Game
- Designed game in a 2D array grid format that updated boxes with falling Tetris pieces
- Implemented variable difficulty that increases the longer the application runs
- Included togglable Tetris music and sound effects during gameplay
- Developed on IntelliJ to display game on an Android smartphone emulator or onto connected Android smartphone

Super Mario Bros Android Game Application | *Java* — May 2019 – Jun. 2019

- Developed a game using Java language to replicate 3 different levels of the Super Mario Bros Game
- Implemented a side-scrolling, 2D array grid platform to update positions of player, obstacles, and opponents
- Utilized official sprites from the Internet as front-end design during gameplay
- Developed on IntelliJ to display game on an Android smartphone emulator or connected Android smartphone

Autonomous Rescue Trail (ART) Rover | *Python, Raspberry Pi* — Jul. 2020 – Mar. 2021

- Team collaboration to assemble and code an autonomous terrain rover for a Senior Design Project
- Designed a long distanced, GPS tracking rover that can patrol hiking trails for injured hikers with simple intractability
- Provided autonomy through OpenCV and ImageAI to train computer image recognition, location data through GPS collection over Wi-Fi, interfacing through Y/N button response and irregular response timing

Room Monitoring System | *Python, Raspberry Pi* — Apr. 2021 – Jun. 2021

- Developed a model room surveillance system that check statuses for open fenestration, temperature, and human presence
- Analyzed temperature from CIMIS local weather website's temperatures and compared to user-adjusted temperature for AC or heater activation
- Enabled voice recognition to halt or continue any processes based on detected human infrared presence