Joseph Widjaja

widjajajoseph@gmail.com | 949-236-7083 | GitHub: github.com/jwidjaja0 | website: jwidjaja0.github.io

TECHNICAL SKILLS

Programming: Java, C++, SQL, Python, ARM Assembly, Git
Web: HTML, CSS, PHP, JavaScript, jQuery, JSON
Other: MATLAB, R, 3D CAD (Fusion 360, Solidworks), PCB layout and assembly.

EDUCATION

Bachelor of Science in Software Engineering   Expected 2022
University of California, Irvine
Relevant courses: C++ programming, Advanced Java programming, Data Structures and Algorithms, Computer organization and assembly language, numerical methods.
Bachelor of Science in Chemical Engineering   Class of 2015
University of California, Irvine. *Cum Laude* Honors

PROJECTS

Multiplayer Tic-tac-toe
Source: https://github.com/jwidjaja0/GameServer, https://github.com/jwidjaja0/GameClient
- *Technology: Java*
- *Concepts applied: OOP, socket programming, multithreading, unit testing, database management (SQLite).*
- Client-Server desktop applications, server handles all client connections, requests, and games being played. Server saves all moves played in games and each client's win-lose-draw record.
- Client app implements playing games with other players or with AI developed using minimax algorithm.
- Applied Agile software development with test-driven development, daily scrums, pair-programming, and user stories for continuous software delivery to client.

Covid-19 Chart
live version: https://mycovidchart.herokuapp.com/ source: https://github.com/jwidjaja0/covid-chart
- *Technologies: HTML, CSS, JavaScript, jQuery, PHP, Google charts.*
- Web application utilizing third-party API (covid19api.com) and organizing the raw data to be displayed into charts for users.
- User can select which countries to be displayed and different statistics to be displayed into the screen.
- Implemented login system for users to save and load preferences for which countries and statistics to display.

DrawShape – 2D graphics rendering using QT framework
- *Technology: C++ with QT framework*
- Worked in a team of 4 students to create a graphic rendering application that displays multiple 2D shapes on screen. Application allows user to customize each shape and move them around.
- Implemented back-end system to handle requests from/to UI to create/change/delete shapes.

PROFESSIONAL EXPERIENCE

R&D Engineer - *Analytical Detection – Mission Viejo, CA*   April 2018 – Present
- Supports development of Ion Mobility Spectrometry (IMS) instrument for trace chemical detection.
- Developed python scripts to aggregate thousands of test results for analysis.

Analytical Chemist - *Rapiscan Systems – Torrance, CA*   Jan 2017 – Feb 2018
- Worked on improvements of existing handheld IMS systems for trace explosive and narcotics detection.

Associate Research Scientist - *Morpho Detection – Santa Ana, CA*   June 2014 – Jan 2017
- R&D on Mass Spectrometry and Ion Mobility Spectrometry Instruments for chemical trace detection.
- Programmed different simulation scenarios with Lua to find potential improvement for instruments.
  Patents: *Chemical Vaporization and Detection of Compounds Having Low Volatility*. US 9683981, 10317387; *Temperature Influenced Chemical Vaporization...* US 9689857, 10345282