Joseph Widjaja

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TECHNICAL SKILLS

Programming: Java, C++, MatLab, Git, MySQL
Web: HTML, CSS, JavaScript, Bootstrap
Other: 3D CAD (Fusion 360, Solidworks), PCB layout and assembly.

SOFTWARE PROJECTS

SimpleChat – Desktop chatting app
https://github.com/jwidjaja0/SimpleChatServer, https://github.com/jwidjaja0/SimpleChatClient

- Concepts applied: OOP, socket programming, multithreading, database management.
- Chatting application consisting of server and user applications. Server manages receiving new connections, user registration/logins, chatrooms, and message distributions to appropriate chatrooms and users.
- User can register/login, create new/join existing chatrooms, and communicate with other users.

Multiplayer Tic-tac-toe
https://github.com/jwidjaja0/GameServer, https://github.com/jwidjaja0/GameClient

- Worked in team of 3 and developed a multiplayer Tic-tac-toe game, using the same architecture as the chatting application above. Players can connect to server and play Tic-tac-toe games with other players and view other games being played by other players.
- Server application manages user registration/logins, monitors all connected players and active games. Server can pull details of all players and previous games from database.
- Player application can view overall W/L/D and details of all games played in the past. Player can start new game with another player or play vs computer AI; computer AI was developed with minimax algorithm.
- Applied Agile software development with test-driven development, daily scrums, pair-programming, and user stories for continuous software delivery to client.

PROFESSIONAL EXPERIENCE

Analytical Detection – Mission Viejo, CA
R&D Engineer   April 2018 – Present

- Support development of Ion Mobility Spectrometry (IMS) instrument for trace chemical detection.

Rapiscan Systems – Torrance, CA
Analytical Chemist   Jan 2017 – Feb 2018

- Worked on improvements of existing handheld IMS systems for trace explosive and narcotics detection.

Morpho Detection – Santa Ana, CA
Associate Research Scientist   June 2014 – Jan 2017

- R&D Mass Spectrometry and IMS instruments for improvements of trace explosive/narcotics detection.

PATENTS

- *Chemical Vaporization and Detection of Compounds Having Low Volatility*. US 9683981, 10317387
- *Temperature Influenced Chemical Vaporization and Detection of Compounds Having Low Volatility*. US 9689857, 10345282

EDUCATION

Associate of Science, Computer Science (in progress)
Saddleback College

Bachelor of Science in Chemical Engineering
University of California, Irvine. Honors: Cum Laude, GPA: 3.5