Billy Sudirdja

Norwalk, CA, USA • bsudirdja@gmail.com • (650)-267-0036 • in/billysudirdja • billysud.github.io/website/

EXPERIENCE

Certified Repair Technician
uBreakiFix by Asurion   **September 2023 - Present, Cerritos CA**

- Diagnosed 30 devices daily, improving device availability and reducing downtime for 85% of customer devices.
- Calibrated firmware for Samsung, Google, and Apple devices, ensuring 100% compliance with security standards.
- Resolved over 50 incidents per month on the spot, enhancing efficiency and customer satisfaction by reducing escalations.

Peer Instructor
Skyline College   **August 2019 - April 2020, San Bruno, CA**

- Facilitated 3 problem-solving sessions per week for Calculus students, improving understanding and class performance for over 30 students.
- Assisted with course material and homework review for Pre-Calculus, Calculus 1, 2, and 3, boosting student pass rates by 15%.
- Developed customized lesson plans for struggling students, improving comprehension and retention rates by 25%.

Intern
SLAC National Accelerator Laboratory   **June 2019 - August 2019, Portola Valley, CA**

- Developed scripts in Java and Python, increasing automation speed by 10% by using algorithms to optimize mechanical instrumentation.
- Distributed power across 50 PLCs, improving system efficiency and reducing downtime during particle accelerator operations.
- Installed oxygen deficiency monitors in 10 lab areas, enhancing safety monitoring and compliance with health standards.

PROJECTS

Agile Development Project
- Successfully developed a web application using JavaScript, CSS, HTML, and ElectronJS in an Agile environment, ensuring seamless user experience and responsiveness.
- Led a team of 10 to implement a CI/CD pipeline using GitHub, enhancing collaboration and reducing deployment time by 20%.
- Automated documentation for 60 functions using JSDocs, improving code clarity and reducing errors by 15%.

Huffman Compression/Decompression Tool
- Reduced file size by 70% using C++ and Huffman tree serialization, saving 50MB per compressed file using with bit-wise buffer.
- Optimized tool runtime by 10% using GNU Profiler (gprof), enhancing data processing speed.
- Improved error detection and handling mechanisms, enhancing tool reliability and reducing data corruption incidents by 15%.

SHA-256 and Blockchain Project
- Improved hashing algorithm performance by 25% in the SHA-256 and Blockchain Project by optimizing word expansion, buffer initialization, and parallel processing.
- Automated testing using Quartus, ensuring 100% accuracy in verification and validation for blockchain transactions.
- Balanced blockchain speed and area requirements, enhancing nonce discovery time by 20% utilizing caching techniques.

EDUCATION

Bachelor of Science, Major in Computer Engineering
University of California San Diego

Associate for Transfer, Major in Physics, and Mathematics
Skyline College

SKILLS

Programming Languages: C, C++, Java, JavaScript, HTML, CSS, Python, Linux/Unix, ARM Assembly, System Verilog

Software Development Tools: Object-Oriented Programming, Full-Stack Development, Agile, Git, GitHub, VSCode, Visual Studio, PowerShell

Soft Skills: Leadership, Critical Thinking, Verbal Communication

Microsoft 365: Word, Outlook, Teams, Excel, OneNote, Planner, PowerPoint