David Edwards
Software Engineer
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JOB RELATED SUMMARY:

- Accomplished Software Engineer who holds Bachelor's Degree in Computer Science from California State University.
- Core languages experience: C/C++ 6 years, Python 10 years. Java 6 years.
- Familiar with Matlab in academics to develop Simulink models and observe the output, M-Files, simple GUIs.
- 10+ years experience with Git and Subversion repository code version control system and working in Agile / Scrum team project development.
- Project experiences include creating dynamic web/mobile applications using: HTML5, CSS3, SQL/NoSQL, Java, Python, MongoDB/Django DB integrated codebases running on UNIX/Linux and Windows platforms. Python backend, API and GUI tool developer. 18+ years Linux OS experience.
- US Navy Veteran 6 years Aviation Electronics Technician Supervisor

EDUCATION

Bachelor of Science in Computer Science, California State University, Los Angeles, CA 2014
Associates of Computer Science, San Diego City College, CA 2009

PROFESSIONAL EXPERIENCE:

UpWork.com / Freelancer.com   **July 2023 – Current**
Software Engineer (Freelance)

- Designing application systems, recommend and apply software upgrades for clients.
- Establish relations with new and repeat clients to write new code and integrate updates to legacy websites.
- Communicate with clients to understand their needs and implement upgrades to legacy embedded software.
- Upgrade and maintain personal portfolios and websites.

Qualcomm, San Diego, CA   **July 2020 - June 2023**
Engineer
Embedded Software Content Compliance and Linux Open Source team:

- Develop, maintain, and operate software scanning automated tools using C/C++, Python, Docker, Bash scripts.
- Overview embedded software product development lifecycle of Open Source Systems for Android, Linux, Arm, Kernel, GNU.
- Reviewed in-house developer code for open source compliance.
- Developed and maintained open source compliance review automation systems.
- Developed a web API for Open Source team to curate and manage SBOM (Software Bill of Materials) reports.
- Support engineering teams in managing open source compliance.
- Built tools in automation to streamline development processes utilizing C/C++, Python, Docker, Django, Linux/Scripts (Python, Bash, JS), JavaScript, Node.js, React.js, other JS variants.
- Systems used: Jira, Gerrit, Git/GitHub, Docker, Django, Microsoft suite of tools.

ABCO Technology Institute   **August 2019 - Sept 2020**
Inglewood, CA
Mobile Application Developer

- Created dynamic, database-driven mobile applications and websites for business-to-business / business-to-consumer userbases using latest technologies including Android + Kotlin with Android Studio to deploy applications on Xamarin, React Native or Flutter frameworks.
- Worked closely with Web marking and business specialist departments to gather business and technical requirements, and architect working solutions working within financial and resource constraints.

- Projects applied variety of specialties including e-commerce design and search engine optimization.

Saatchi & Saatchi, Torrance, CA   **October 2015 - July 2019**
Python Developer
- Developed in-house tools and scripts using Python, PyQt, PySide and JavaScript in Maya, Nuke, Shotgun and Photoshop.
- Maintained Python codebase connecting to Deadline hooks and exits for Autodesk Maya, The Foundry Nuke, Shotgun Software, and Thinkbox Deadline.
- Evaluate and test new applications, software, and workflows to improve production.
- Worked with a team to develop an ingestion system to automate build data sheets for annual garage CAD data from Japan utilizing Unreal Engine.

DIRECTV, Marina Del Ray, CA   **April 2015 – June 2015**
Software Engineer
- Modifying and creating scripts responsible for talking to pieces of communications and satellite equipment using Java and Groovy programming languages.
- Build front-end UI to monitor and maintain cable TV network traffic using a combination of third-party products and Groovy.

theAudience.com, Los Angeles, CA   **October 2014 – January 2015**
Data Analyst/Developer
- Created data collection scripts in Python to collect and store data from various social media sources utilizing social media's API.
- Provided insights to what information can be determined from each social media data source.
- Maintained and extended internal APIs to served stored data to other applications.
- Maintained and extended internal report generation tools.
- Worked with other development, analytics and sales teams to create client facing reports.

INTERNSHIPS AND PROJECTS
General Motors Sponsored EcoCar2 Competition, Los Angeles, CA   **January 2014 – June 2014**
QT/QML/C++ GUI Developer
- Developed a GUI interface for an embedded system which runs C++ on a Freescale i.MX 6 Sabre ARM board.
- Used a custom Linux kernel to program the Freescale board.
- Used C++ to transmit and receive CAN signals over the vehicle's CAN bus.
- Developed a user interface using Qt QML library to create software-based controls to replace radio and climate control mechanical buttons while continually displaying live diagnostic data signals.
- Read and write CAN signals from the car, translating them using a Linux driver, and implemented in QML, C++ to display interactive touch screen controls on the vehicle display console.
- Tested onboard program inside vehicle with live controller area network signals.
- Debugged onboard program through serial cable.
- Worked with a team of 6 developers on computer science portion of project.
- **Project Website: http://csns.calstatela.edu/department/cs/project/view?id=4556961**

Boeing Company, El Segundo CA   **August 2013 – January 2014**
Test Framework Developer
- Built a test framework to automate testing for Boeing 702SP operations satellites by developing a system in Java and Python that automates the conversion of TCL/Tk-encoded test cases into Sikuli-readable JSON using the Java ANTLR parser.
- Identified and extracted test cases from TCL/Tk and Perl scripts using ANTLR into an interactive user interface in Java's JGraphx API for test engineers to select test cases, then using Sikuli, a GUI automation tool that was used to replace the test engineer, automate the process on the satellite simulator and produce a log report for later review.
- The final result was successful in optimizing testing, while saving Boeing Company time and money.
- **Project Website: http://csns.calstatela.edu/department/cs/project/view?id=4556960**

PCWerk.com, Playa Vista, CA   **January 2013 – June 2013**
Project Developer
- Wrote a program that performed data scraping from Yelp's website using Python and Selenium Web driver, and Yelp API.
- Deployed this program on a Hadoop single-node cluster setup on Ubuntu Linux.
- Performed Data Mining and Data Warehousing with MapReduce operations on single-node HDFS on Ubuntu Linux.
- Used Yelp API access for data collection.
- Performed data classification and data massaging from JSON to CSV text.
- Calculated Data analysis on yelp datasets from Yelp API using python while utilizing python extension library pylab.
- Created and presented data visualization using python matplotlib and google maps API Hosted at: **https://github.com/pcwerk**

LICENSES / CERTIFICATIONS

Mobile Application Development certification - (Android/iOS hybrid) Logical Operations Master Mobile Application Developer (MMAD), ABCO Technology Institute. Nov. 2020.

Accredited Project Manager (APRM™) certified. 2019.

OSHA 30 licensed Oct. 2019.

FCC (Federal Communications License) with GROL endorsement. 2003.

Advanced Fiber Optic Installation Technician License. 2003.