Mola Pahnadayan
SOFTWARE DEVELOPER

Contact

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Profile

A seasoned programmer with over 20 years of experience specializing in Qt/C++ and a track record of success in GIS systems, condition monitoring, and creating robust simulation tools. Known for developing scalable, cross-platform solutions and leading innovative projects in dynamic team settings.

WORK EXPERIENCE

- **Software Manager & Developer | Datall, Tehran**
  May 2022 – Present
  Oversee development operations and contribute to software solutions, enhancing efficiency and monitoring across platforms.
- **Advisory Software Engineer | Mojpardaz Alborz, Tehran**
  January 2012 – Present
  Provide expert guidance on software development projects, ensuring the adoption of best practices and delivering high-quality applications.
- **Head Of Development | Sharif University of Technology, Tehran**
  April 2015 – May 2019
  Led a dynamic development team in executing strategic plans for software innovations while fostering an environment of learning and growth.
- **Senior Software Engineer | Mojpardaz Basir, Tehran**
  January 2008 – January 2012
  Promoted software excellence and problem-solving acumen, driving the creation of cutting-edge applications for various needs.

EDUCATION

* Bachelor of Software Engineering

Skills

- Proficient in Qt/C++/QML and Boost/C++ for robust hardware and software interfacing.
- Skilled in socket programming and multithreading to support asynchronous task management.
- Database management using PostgreSQL, SQLite, and Microsoft SQL Server.
- Development of cross-platform software for Linux and Windows operating systems.
- Extensive Python programming for scripting and automation.
- Proficient in user experience optimization for desktop applications.
- Utilization of OpenSceneGraph, Osgearth, and Quantum GIS for sophisticated GIS applications.
- Software deployment using Cmake and version control with Git.
- Experience with virtualization tools such as Linux KVM and multimedia frameworks such as Gstreamer.
- Design skills including Inkscake, Gimp, and Blender for creative project needs.

Projects

- **GIS Applications:**

  - Executed projects involving interactive GUI designs with QML/Qt/C++ for 2D visualization and Qt/OsgEarth/C++ for 3D models.

- Developed custom protocols over TCP/IP for data communication and utilized PostgreSQL with PostGIS for spatial data management.
- **Condition Monitoring Systems:**

  - Architected and developed a modular server utilizing Drogon/C++ and interfacing with a PostgreSQL database, seamlessly integrating OPCUA Server & Client to drive comprehensive desktop monitoring software.
  - Implemented advanced computational models with Armadillo/C++ for real-time analysis and monitoring of machinery performance, focusing on reciprocating compressors, steam turbines, and gas turbines.
  - Constructed a sophisticated graph of nodes to simulate and compute cyclic operations, enabling precise condition assessments and predictive maintenance capabilities to minimize downtime and optimize efficiency.
- **Simulation Tools:**

  - Designed a suite of simulators, including AIS and Vibrating Sensor Data simulators, reinforcing test-driven development and validating the integrity of software solutions.

- **Open Source Contributions:**

  - Fedora Core 6: Contributed to theme development and enhancements.
  - Project Atlas: Integrated Linux build process (https://github.com/tqjxlm/Atlas).
  - Qt Contributions: Added PostgreSQL notification to Qt (https://bugreports.qt.io/browse/QTBUG-17826).
  - Developed and maintained Qt Widgets like QSpectrum (https://github.com/mola/QSpectrum) and QtPieMenu (https://github.com/mola/QtPieMenu).
  - Additional projects and contributions detailed at https://github.com/mola.

Languages

- Fluent in Persian
- Proficient in English