Patrick Sagan

1-506-[redacted] | [redacted]@gmail.com | linkedin.com/in/[redacted] | github.com/pcsagan

EDUCATION

[redacted] Community College [redacted]
Associates Degree in Computer Programming Technology *Sep. 2005 – May 2007*

[redacted] High School [redacted]
Diploma *Sep. 2001 – May 2005*

EXPERIENCE

Software Developer [redacted]
[redacted] *July 2019 – July 2020*
- Created high performance raster feature detection library using C++
- Reduced processing times of Earth-observation datasets by 600%
- Implemented universal coordinate reference system support
- Created an Python-based testing suite for our GDAL-based data algorithms
- Hosted weekly presentations to report progress, design decisions, and processing results

Software Developer [redacted]
[redacted] *May 2007 – April 2018*

[redacted] Product Team
- Created data visualization tools for 2D/3D datasets
- Implemented new format readers for hydrographic transceiver hardware output
- Integrated SQL-based relational and spatial databases into C++ applications
- Improved product performance with multi-threading and distributed processing
- Implemented unit tests with CppUnit and automated functional tests with Python
- Developed high precision C++ geometry libraries

Leadership Roles
- Hosted company-wide information sharing sessions with visual presentations for development teams
- Led planning meetings where our team discussed task breakdown, complexity, and time estimates
- Encouraged team members to use standard libraries and best practices
- Promoted quality control standards and Agile development practices
- Improved team productivity with custom Python scripts and C++ utilities

PROJECTS

Tethys | *PyPI, Sphinx, PyTest, Bandit, Black, Flake8, MyPy, Pycodestyle, Click, Tox* Feb. 2023 – Present
- Developed a Python package template with support for Testing, Documentation, and Publishing
- Automated publishing to PyPI with Github Actions
- Utilized pre-commit hooks for local source linting

Magimania | *C++, Lua, Rml, Rbfx, Blender, CMake* Oct. 2022 – Present
- Developed a 3D Action RPG game for Windows, Linux, Mac, and Android systems using the Rbfx game engine
- Implemented customization by generating Lua script bindings
- Supported multiplayer with Server and Client components using TCP/UDP
- Collaborated with Rbfx developers on Discord and contributed fixes via Git pull requests

DS CNC | *Node.js, React, NextJS, NextAuth, Flask, PostgreSQL, JWT, Tox* Aug. 2022 – Oct. 2022
- Developed a full-stack website for a local business with public and private sections
- Featured private business tools for issue tracking and maintaining a Quality Management System
- Implemented continuous delivery using Git and Github Actions

TECHNICAL SKILLS

Languages: Python, C/C++, C#, SQL (Postgres), JavaScript, HTML/CSS, Lua
Frameworks: FastAPI, Flask, Django, React, Node.js, NextJS, Material-UI, Bootstrap, Shoelace
Developer Tools: Git, Github Actions, AWS, Jira, Jenkins, Docker, VS Code, Visual Studio, Linux
Libraries: GDAL, OpenCV, MongoDB, NumPy, Matplotlib