Simon Benoit
SOFTWARE ENGINEER

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A seasoned software engineer with a versatile skill set in C, Python, Javascript and ROS. Proven track record of enhancing system efficiency, introducing innovative solutions, and leading project development across various domains including robotics, healthcare, AI, cloud computing and environmental science.

Work Experience

SOFTWARE ENGINEER
Jan 2023 - Apr 2023

Nexus Robotics | Montreal

Main Task Performed: Revamped the navigation system of an automated agriculture rover using C on ROS Robot Operating System

- Thoroughly documented computer software use cases with the client, outlining both functional and non-functional requirements to satisfy the client's needs and business requirements.
- Spearheaded a new project to change and enhance existing architecture for robot observation and navigation systems.
- Utilized C in a ROS environment to create an innovative navigation system that leverages satellite and radar imaging to precisely navigate robots within a crop field. Increased location accuracy by 10%.
- Implemented decision-making artificial intelligence to sift through incoming data, prioritizing relevance and dynamically changing motor action for seamless movement. Improved machine accuracy by 15%.
- Lead weekly client meetings, conducting design reviews as a subject matter expert. Acted as scrum master utilizing agile methodologies to keep track of project-goal alignment.

SOFTWARE ENGINEERING INTERN
May 2022 - Nov 2022

Environment Canada | Montréal

Main Task Performed: Enhanced server-side file transfer subsystem in a cloud environment using C and Python.

- Served as a full-stack developer on an AMQP infrastructure for Environment Canada's network operating on Microsoft Azure, catering to over 20 corporate clients.
- Documented existing procedures in preparation for a systemic move to MQTT Message Queuing Telemetry Transport pubsub file transfer protocol.
- Prepared detailed reports concerning project specifications, activities, and status to a team of over a dozen employees, ensuring team effort cohesion.
- Lead weekly team meetings to update and plan next steps in development of information systems as well as input for learning new technology.
- Updated software and data transfer procedures to align with World Meteorological Organization (WMO) international standards to facilitate worldwide data export.

SOFTWARE DEVELOPER INTERN
May 2021 - Aug 2021

Sainte-Justine Hospital | Montreal

Main task Performed: Helped create a new COVID-compliant computer application for hospital nurses using Javascript, CSS and SQL databases.

- Conducted computer application design, development, and integration for new software.
- Led the frontend and backend development of scalable web software features including mySQL database integration to be implemented in a cloud solution.
- Successfully introduced the software into the hospital network, positively impacting hundreds of nurses and enhancing workflow efficiency by 7.5%.
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Implemented new C software to enhance UI/UX for the IT team, improving workflow productivity by 10% and decreasing user request queries by 20%.

QUALITY ASSURANCE TESTER   May 2019 - Aug 2019
Keyword Studios | Montreal

Main task Performed: Test and document bugs in a high-profile multiplayer game

- Pro-actively monitored support testing, identifying and meticulously documenting at least 50 failures in game project.
- Facilitated defect meetings with various management level developers and quality assurance leads using Jira.
- Developed and qualified around 15 new testing methods and unit testing with quality assurance leads, improving overall testing efficiency and coverage.
- Conducted thorough evaluations of established analytical methods and procedures to determine how they might be improved to enhance and optimize testing while keeping strong cyber security.

SOFTWARE ENGINEERING INTERN   Jan 2019 - May 2019
Thales | Montreal

Main task Performed: Adapted code to utilize old certified system using Python and Ada.

- Developed and implemented computer software solutions using object-oriented design philosophy. Closely collaborated with senior software engineers.
- Developed Python code that interfaces with certified systems critical for project operations, ensuring seamless integration and functionality.
- Authored extensive and comprehensive documentation, providing consistent insight into existing code to enhance communication and knowledge transfer.
- Collaborated with other departments to increase usage of higher efficiency implementations post deployment, increasing efficiently by roughly 15%.

Core Skills

Java, JavaScript, SQL, Maven, J2EE, jQuery, Apache tomcat, Spring framework, Hadoop, AWS, TypeScript, API Design, Best Practices, HTML, Recruiting Process, Financial Empowerment, Support Software, Scrum Software Development, Maintainable Code, Integration Testing, GraphQL, Code Reviews, Business Objectives, Node.js, Ability to Multitask, Architectural Design, Design Teams, HAML, Postgres, MVP, Product Management, RSpec, Redis, Ruby On Rails, Sidekiq, Threat Detection, Partnership, Commitment, cyber security, Take Full Ownership

Education

École de Technologie Supérieure   Jun 2018 - May 2023

Bachelor of Engineering Software Engineering