Jason C. McDonald█

Engineering & Project Manager |
Business Analyst | Product Owner |
Author | Speaker

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Seeking role as manager, project manager, business analyst, or director of engineering. Skilled communicator with experience in Agile, Scrum, requirements gathering, planning, and client interactions. Capable of organizing and facilitating complex projects with changing requirements. Principal software engineer in Python, C++, and other languages, with experience in refactoring, debugging, and software architecture. Additional experience with Ubuntu, DevOps, and IT.

Selected Professional Experience

Sparq (formerly Rural Sourcing) [August 2022 - August 2023]
Principal Consultant — Tech lead, refactoring legacy code, software systems architecture.
- Tech Lead and Scrum Master on designing and implementing complete software solution in Python, TypeScript, Preact. Managing a team of 2-8 developers with chronically high churn (due to external factors).
- Product Owner and Business Analyst, working in close collaboration with a Product Strategist, UX Designer, and stakeholders to design, plan, and deliver software solution.
- Performed code discovery and re-implemented ML-based image processing pipeline based on existing legacy code for immediate use in production by client.
- Wrote extensive documentation to facilitate onboarding and minimize risk and uncertainty.
- Wrote detailed policy proposals in close collaboration with multiple members of upper management to solve a set of chronic business challenges.

Corgibytes [February 2022 - August 2022]
Lead Code Whisperer (Software Engineer) — Refactoring legacy code for clients.

Canonical [June 2021 - February 2022]
Senior Software Engineer, Cloud Images — Building and shipping Ubuntu images for use as foundation of thousands of significant cloud-based production environments. Served as effective project manager.
- Coordinate with major cloud providers and various Canonical teams to engineer solutions to specific business problems, without disrupting production environments.
- Improve and maintain team workflow tooling.
- Write and implement in-team process policies to improve quality and resilience.
- Maintain Ubuntu cloud image building, testing, and publication pipelines in Python, Bash, and Jenkins.

MousePaw Media [May 2010 - Present]
Lead Software Engineer — Managing programming department, oversees and develops open source libraries and software in C++ and Python.
- Train and mentor software engineering interns through year-long internships, onboarding them into full-time careers. Developed the internship program in direct cooperation with local universities.
- Serve as Product Owner for Scrum-driven development team.
- Deploy and maintain collaboration and CI/CD platform for internationally distributed team and open source community.
- Design and lead implementation of projects in C++ and Python

Author, Speaker [January 2017 - Present]
- Author of "Dead Simple Python" (No Starch Press, November 2022)
- Author and creator of Quantified Tasks methodology: https://quantifiedtasks.org/
- Numerous articles on Python, C++, and project management: https://dev.to/codemouse92
- Presented Python talks at conferences such as EuroPython, Pyjamas, FOSDEM, and Conf42

Mailspring [January 2021 - June 2021]
Community Manager (Volunteer) — Manage user community, prioritize tasks, answer questions.
- Create Discourse for user community, including user-facing issue tracking and documentation.
- Triage and migrate GitHub Issues backlog (1.1K issues initially) to Discourse.

- Assist project owner in defining roadmap and project direction.
- Diagnose and fix bugs in Mailspring (Electron/React/Typescript).

Technical Skills

Project Management: Skilled at calming chaos and managing projects with changing requirements, high risk, and high churn. Implemented Scrum in existing team. Served as Scrum Master and Product Owner, trained others as Scrum masters and Agile developers. Owned and maintained backlog. Creator of Quantified Tasks methodology.

Management: Managed teams of developers ranging from interns to seniors. Mentored and trained developers, especially interns. Authored and implemented policies to address organizational challenges. Designed and managed administrative processes.

C and C++: Designed and implement libraries and native desktop applications, particularly with efficient, memory-safe code. Diagnosing and debugging difficult errors, especially undefined behavior. Code refactoring and modernization, memory management, algorithmic efficiency, and advanced debugging techniques.

Python: Designed and implemented native desktop applications, command line applications, APIs, ML/data pipelines, testing frameworks. Code refactoring, testing, and modernization.

Additional Technical: Strong technical aptitude, enabling rapid onboarding to any language, framework or domain. Skilled in Bash script development and use in production environments. Working proficiency with C#, Java, Javascript, Typescript, Ruby, SQL (including MySQL and PostgreSQL), HTML 5, CSS 3. Prior expertise in ActionScript 3.0 and Visual Basic .NET. Configured and maintained public-facing, access-controlled Ubuntu servers on both bare metal and cloud.

DevOps: Maintained critical image publication pipeline with Jenkins. Deep familiarity with Git. Implemented comprehensive CI/CD workflows for Python, C++, and TypeScript projects in GitHub, GitLab, Phabricator, Jenkins, and others.

Hiring: Conducted remote and in-person interviews of local and international candidates for various development and non-development positions at three organizations. Trained others in hiring techniques and best practices.

Technical Writing: Written documentation for libraries/APIs, DevOps processes and workflows, training material, and administrative policy documentation. Written multiple articles regarding software practices, project management, and software development. Author of "Dead Simple Python" (No Starch Press), based on series of the same name on DEV.

Public Speaking: Presented at prominent technical conferences, as well as at colleges, workforce training, and universities on software development and career advancement. Co-host and producer of The Bug Hunters Café.

Education

North Idaho College [Non-Degree]: Interpersonal, intercultural, and non-verbal communication, public speaking, general psychology.
- 4.0 GPA, Dean's list.
- Recipient of Outstanding Student in Communication Department Award.

Portfolio: github.com/codemouse92

LinkedIn: linkedin.com/in/codemouse92