NICOLAS STEVEN MILLER

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SELECTED SIDE PROJECTS

Flour - A Scheme interpreter in Javascript and an in-browser REPL.
Gwyon - A Tetris implementation in Javascript, HTML and CSS. See website for a playable instance. Source available on Github (see url above).

TECHNICAL SKILLS

Note: As a developer I strive for depth of knowledge, pragmatism, adaptability and clear communication, not merely experience with or adherence to particular languages or tools. My goal is always to ship functionality that is effective, tested and maintainable, regardless of the underlying technology.

Languages - Most experience with: Python, Javascript and Java. Past work in: C, Scheme, Ruby, C++, PHP.
Testing - Unit, Integration, Test-driven, Behavior-driven, Mock objects, UI automation. Tools of choice: xUnit (various), Jasmine, Selenium.
Web - Back-end: MVC, ORM, data modeling, database query development and tuning. Front-end: jQuery, AJAX, JSON, CSS, templating.
Preferred Tools - Bash, Vim, Git and FOSS software in general.

EXPERIENCE

Full-stack Web Developer — FoundationIP, Minneapolis, MN — 9/11 - Present

Selected Contributions - 1. Implemented persistent, per-user navigation UI customization. 2. Automated the extension of existing domain objects with client data sourced from an external web application cutting workflow time from hours to seconds. 3. Rewrote the password recovery mechanism to reduce susceptibility to brute force attacks. 4. Worked with a large legacy codebase on a daily basis (approx. 1 million SLOC). Authored numerous bug fixes of varying scope with an emphasis on refactoring for clarity and testability.
Technologies - Front-end: jQuery, CSS, JSP. Back-end: Java, Struts2, Spring, Hibernate, SQL Server. Test: jUnit, unitils mock, Selenium. Build and CI: Maven, Jenkins.

Software Engineer — Boston Scientific, St. Paul, MN — 3/09 - 5/11

Selected Contributions - 1. Wrote a test infrastructure library in Python enabling efficient verification of requirements governing storage of private patient data. 2. Developed and maintained automated, requirements-based tests. 3. Maintained a tool for generating test scaffolds from machine-readable requirements.
Technologies - Python, wxPython.

Internships

- **Seagate** - 5/07 - 12/07 - Built a graphical CAD tool in Java for hard disk air bearing design.
- **Karges-Falconbridge** - Summer 2006 - Built an asset management system on a LAMP stack.

EDUCATION

University of Minnesota, Minneapolis, MN
Bachelor of Computer Engineering, August 2008
Undergraduate Honors Thesis - *Computer-Aided Color Appearance Design*
Developed an OpenGL application in C++ to visualize trends in automotive paint color space data. Wrote a shader-based renderer to model metallic paint surface reflection.