

Maja Frydrychowicz

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- Summary**
- 3 years of experience teaching problem solving & programming in university/Cégep.
 - Strong background in: structured/OO programming, web media, algorithm design.
 - Evidence of effective teaching and dedication to continual pedagogical improvement.

Education

Master of Science **Computer Science**, McGill University, Montréal, QC, 2008–2011.
Thesis: An epistemic analysis of authentication

- Technical Projects
- **[C]** Python compiler for a web-interface language (4000 lines of code, Dec. 2010)
 - **[Java]** Optimization generator for a Java Bytecode obfuscation suite. (Apr. 2009)
 - **[C, OpenGL API]** Interactive volume-rendering simulations. (Jan. 2008)

Bachelor of Science **Computer Science**, McGill University, Montréal, QC, 2004–2008.
Graduated with First-Class Honours and Mathematics Minor.

Skills

- Communication **English** (native) and **French** (fluent – written and spoken)
Programming Java, C, Unix shell scripting (bash), Python, Matlab
Development Object-oriented design, Eclipse IDE, version control (SVN)
Web/Multimedia HTML, CSS, Adobe Photoshop/Illustrator, CGI, Flash ActionScript.

Teaching Experience

Course Instructor Understanding Excel, Vanier College, Montréal, QC, Winter 2011.
Lab-based course aimed at adult learners with no prior computer-related experience.

- Adjusted class activities to simultaneously serve students of different skill levels.
- Designed hands-on, computer-based assessments using classroom technology.

Course Coordinator & Instructor Introduction to **Java**, McGill University, Montréal, QC, 2010–2011.
3 teaching hours per week for 114 first-year students with no technical background.

- Emphasized hands-on learning through **interactive exercises** and **teamwork**.
- Designed programming assignments and exam questions.

→ **Course Evaluations:** Average 4.0/5

Teaching Assistant McGill University, School of Computer Science, Montréal, QC, 2007–2009.
Courses: Logic & Computability, History of Computer Science, Automated Theorem Proving.

→ Nominated for McGraw-Hill Ryerson Student Scholarship Award **for contributions to the teaching and learning environment** (2008).

Course Instructor Propositional & First-Order Logic, McGill University, Montréal, QC, Summer 2008.
10 teaching hours per week for a diverse class of 40 freshman students from Arts and Science.

→ **Course Evaluations:** Average 4.3/5

- “Good job on making the material a whole lot more interesting...”
- “Assignments force us to study properly so that when midterm comes, we’re ready.”
- “She answers questions very clearly, in different ways for different students.”

Teaching Development

Graduate Course (3 credits) **Teaching & Learning in Higher Education**, McGill Faculty of Education, 2008.
– Proposed a full plan for a course in Logic, including rationale for assessment, teaching strategies, homework assignments and learning objectives.

Teaching Workshops **Applying the Scholarship of Teaching in Science & Math**, McGill University, April 6-7, 2010.

– Compared the different stages of intellectual development in late adolescence.

Learning to Teach: A Professional Development Workshop for Graduates, McGill Teaching & Learning Services, Nov. 7, 2008.

– Practiced giving effective face-to-face feedback about student performance.

Teaching in Science, Tomlinson Project in University-Level Science Education, McGill Faculty of Science, Aug. 25-28, 2008.

– Learned about the applications of cognitive science to education.

Contributions to Pedagogical Development Initiatives

Workshop Facilitator McGill Teaching & Learning Services, Tomlinson Project in University-Level Science Education, Montréal, QC, 2008–Present.

– Organized and moderated monthly problem-solving meetings for graduate students facing teaching challenges in Faculty of Science courses.

– Designed and delivered six workshop sessions on effective grading and feedback and teaching strategies that increase student engagement.

Teaching Evaluation Assistant Course Design Workshop, McGill Teaching & Learning Services, Montréal, May 2009
– Provided feedback about teaching strategies to McGill instructors based on short samples of their lectures.

Research Awards

Graduate Funding Alexander Graham Bell Canada Graduate Scholarship, National Sciences and Engineering Council of Canada (NSERC), 2008-2010.

Summer Project Undergraduate Student Research Award, NSERC, 2008.
Termination Checking in a Functional Programming Language with Higher-Order Data

Achievement Award Honourable Mention, Outstanding Undergraduate Award, Computing Research Association, 2008.

Summer Project Undergraduate Student Research Award, NSERC, 2007.
A Logical Foundation for Authorizing Code Execution

Activities & Interests

Web development, graphic design; rock climbing at the Allez-Up climbing gym; rooftop gardening; bicycle repair at Concordia's Right To Move co-op.

References and full **course-evaluation results** are available upon request.