907 20th St, Bellingham, WA 98225 m@ttforbes.com, (253) 508-6877

#### **OBJECTIVE**

An internship or full-time position during the summer of 2012 focusing on solving computationally challenging science/engineering problems.

#### **EDUCATION**

Bachelor of Science.

Western Washington University, Bellingham, WA, expected Winter 2012

Major: Computer Science Major: Mathematics Minor: Physics

## COMPUTER SKILLS

Languages & Software: Mathematica, MatLab, C, C++, C#,

Python, Common Lisp, Haskell,

Frameworks: Django, ASP.NET.

Operating Systems: Linux, Unix, Windows.

#### **EXPERIENCE**

#### Research Assistant

Fall 2011 to Present

Western Washington University, Mathematics Department

- Continue existing work in the field of geometric tomography using MatLab.
- Coding an algorithm that uses noisy measurements of the mod square of the fourier transform of a characteristic function of a polytope to construct an estimation of a source polytope.

Research Assistant Summer 2011

Western Washington University, Advanced Materials Science/Engineering

- Support development of a Monte Carlo simulation modeling the interaction of photons within a Luminescent Solar Concentrator (LSC)
- Completely refactor existing Mathematica project in to a modular, easily extensible form.
- Implement a model for photon scattering due to imperfections in the LSC materials.
- Present my work to a team of chemists, biologists, and mathematicians working on physical aspects of the project.

## Al Independent Study

Winter 2010

Western Washington University, Computer Science Department

- Learning and implementing techniques that are important to the field of AI, such as searching, knowledge representation, bayesian and neural networks.
- Working with graduate advisor Jianna Zhang who has been influential in machine learning.

#### Associate Programmer

Spring 2010-Summer 2011

Center for Instructional Innovation and Assessment, Western Washington University

- Design and build web and offline applications tailored to the specific needs of courses.
- Maintain and construct software under strict time constraints both as a team and independently.

## Teaching Assistant

Fall 2009-Spring 2010

Western Washington University, Computer Science Department

- Cemented student understanding by walking them through projects relating to their course.
- Communicated ideas that are not straightforward or easy to understand.

# Freelance Web Developer

Intermittently 2008-Present

Home

• Produced quality web components under short time constraints.

## EXTRA-CURRICULAR ACTIVITIES

Participation in 2011-2012 AI challenge sponsored by Google. Elected *Treasurer*, ACM, WWU Chapter. Maintain linux servers for personal and production use. Actively learn new programming languages and techniques.

#### **REFERENCES**

Stephen McDowall, Ph.D. *Associate Professor* Western Washington University, Math. Department

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