# Clinton McKay

Master of Science: Computer Science

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## Computer Skills

Java	Advanced	Primary language taught at the University of Montana.
C#	Advanced	Took courses using $C\#$ also had several jobs that involved .NET programming.
Perl	Advanced	Used Perl as my primary language for two years.
R	${\bf Intermediate}$	Spent a year programming R scripts for data visualization and analysis.
Objective-C	Intermediate	Built an iPhone application for the health department.
C/C++	${\bf Intermediate}$	Implementing a parallel computation course. Assignments are in $C/C++$
Python	Intermediate	Been using python for almost two semesters.

## Education

2007-2014 B.S., University of Montana, Missoula, 3.30 GPA.

Computer Science Major and Mathematics Minor

2012-2014 M.S., University of Montana, Missoula, 3.20 GPA.

Master of Science: Computer Science Degree

## Job Experience

### Apr 2015 - Software Engineer, SoFi - Social Finance, Helena, MT.

SoFi is a new kind of finance company taking a radical approach to lending and wealth management. From unprecedented products and tools to faster service and open conversations, we're all about helping our members get ahead and find success. Whether they're looking to buy a home, save money on student loans, ascend in their careers, or invest in the future, the SoFi community works to empower our members to accomplish the goals they set and achieve financial greatness as a result.

#### Tasks:

- Maintaining various Angular apps.
- Implement microservices.
- Development in Java 8 using the Play and Spring frameworks.
- Building/Updating Hibernate models.
- Development JavaScript for client side code.
- Participate in an agile development process.
- $\circ\,$  Implement unit tests.

- Aug. 2014 .NET Software Developer, Agile Legal Technology, Missoula, MT.
- March 2015 Implemented components for START::Review that utilize concurrent models to help speed up data importation and processing.

#### Tasks:

- o Program in C# .NET using Visual Studio 2013
- Develop unit tests to ensure the program correctness and accuracy.
- Implement threads to boost the performance of the application.
- Improve application import stability.
- $\circ\,$  Reimplement importation back end to allow future file formats.
- Work with the team in an Agile environment.
- Collaborate with the team to determine new requirements from the client.
- Collaborate with the database engineer on a regular basis.
- Aug. 2012 Teachers Assistant, University of Montana, Missoula, MT.
  - May 2014 Taught Microsoft Excel and Access.

#### Tasks:

- Implement weekly lectures for the class.
- Teach Access and Excel
- Grade all of the assignments and homework.
- $\circ\,$  Assess student performance.
- June 2013 Linux System Maintainer, University of Montana, Missoula, MT.
- August 2013 Setup a set of perfSONAR systems such that the University of Montana and the Missoula Fire Lab can monitor network performance on their DMZ link.

#### Tasks:

- Meet regularly with project manager.
- o Install software.
- Configure CentOS for remote management.
- May 2012 **Internship Perl Programmer**, *Indiana University of Bloomington*, Bloomignton, July 2012 IN.

Participated in the NSF funded InCENTRE program at Indiana University Bloomington. The program involved training students about their Network Operations Center (NOC) and getting them involved with various projects. My project involved parsing ARIN.net's registered IP blocks and pulling out the administrator emails for later use by REN-ISAC.

#### Tasks:

- $\circ~$  Meet in the morning with the advisers, determine any requirements, and program.
- Use Perl to connect to a local MySQL database and push the contents of the ARIN.net dump to that database.
- $\circ~$  Use Git to keep track of the project.
- Meet with the rest of the interns in the afternoon to learn about various networking concepts.
   Such as the network stack, wireless security, network security, cloud based storage, and communication hardware.
- Oct. 2010 iPhone Objective-C Programmer, University of Montana, Missoula.
  - May 2011 Constructed an iPhone application that helps individuals reach physical fitness goals.

#### Tasks:

- Program in Objective-C to develop an iPhone application that allows United States Air Force recruits to prepare for the physical exam.
- Meet weekly to demo prototypes or gather and refine client requirements.
- Oct. 2010 Grader, University of Montana, Missoula.
  - Dec 2010 Graded projects and quizzes for the Operating Systems course.

Feb. 2010 - .NET Programmer, University of Montana, Missoula, MT.

May 2010 Using .NET and C#. I added backend code and several administrator pages for the Forestry Department's website. In conjunction, I also added additional components that visualize Montana tourist statistics.

#### Tasks:

- Interfaced with MSSQL using ASP.NET's MVC to allow the client to add and remove economic data for the state of Montana via a web interface.
- Meet regularly with the client to determine requirements and demo the results.

Feb. 2010 - Grader, University of Montana, Missoula, MT.

May. 2010 Graded student projects and quizzes for the Programming Languages course.

## Masters Project

Project Introduction to Parallel Computation

Advisors Travis Wheeler Ph.D, Joel Henry Ph.D., & Bharath Sriraman Ph.D.

Abstract Developed a course designed to teach students about parallel computation, parallel algorithms, and concepts.

#### Tasks:

- Meet with the advisors on a regular basis.
- Construct all of the assignments required by the students.
- Construct tests to verify the correctness of the homework and projects and provide students with the facilities to check their solutions.
- Developed the lecture materials for CUDA and multi-threading.
- Implement C/C++ assignments.

## Other Skills and Hobbies

- Fluent in French.
- $\circ$  I wish I could play games gamer.
- Biking
- $\circ \ {\rm Walking}$
- $\circ \ {\rm Traveling}$
- $\circ$  Building desktop computers.
- $\circ$  Regular Science Fair volunteer.
- o Programming usless stuff.