# Timothy E. Burke

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#### **Summary**

Recent graduate with a Bachelor of Science in Computer Science and working towards a Master of Science in Computer Science. Currently holding a full-time position with the Johns Hopkins University Applied Physics Laboratory, and three previous consecutive summer internships with the same organization. Experience developing and updating desktop tools, web applications, and database systems. Interests include big data analytics, web/mobile application development, human computer interaction, user experience design, and data visualization.

#### **Education**

### M.S. Computer Science, University of Maryland, Baltimore County

Currently Enrolled, Expected May 2016

Coursework: Data Visualization, Research Methods for Computer Science, Distributed Systems.

#### B.S. Computer Science, University of Maryland, Baltimore County

3.48 GPA, Completed January 2012

Coursework: Database Systems, Mobile Platform Development (iOS), Artificial Intelligence.

# Professional Experience

### Johns Hopkins University Applied Physics Laboratory

Software Engineer, February 2012 - Present

Software Engineer Intern, June 2009 - February 2012 (FT Summers, PT during semesters)

Function as UI developer and release manager for new department and enterprise web applications using C#, ASP.NET, .NET MVC, HTML, CSS, JavaScript, jQuery, and jQuery UI. Serve as a member of the Enterprise IT Department's User Experience team. Create user-interface mockups and functional prototypes, incorporating user and management feedback. Mentor two interns during the summer of 2012. Serve as Outreach Coordinator for APL's LGBT employee group, *Allies in the Workplace*. Attend outside recruiting events in support of the laboratory college recruiting office.

### University of Maryland, Baltimore County

Computer Science Help Center Tutor, September 2011 - December 2011

Assist students with theory, programming concepts, and syntax issues for introductory and intermediate computer science courses. Specifically, provided help with Introduction to Computer Science in C, Computer Science I/II for Majors in Python and Java, Data Structures in Java, Computer Organization in C and X86 Assembly, and Principles of Programming Languages in C, LISP/Scheme, Perl, and Python.

#### **Skills**

Languages: C, C++, Objective-C, C#, Java, HTML/CSS, JavaScript, Python, SQL, LISP. Libraries/APIs: jQuery/jQuery UI, iOS SDK 4, ASP.NET/ASP.NET MVC. IDEs: Visual Studio, Xcode, Eclipse, NetBeans, Nano.

Databases: Microsoft SQL / SQL Server Management Studio, Oracle 10g / SQL Developer.

### Honors and Awards

- · APL Special Achievement Award recipient for outstanding work on a successful product release.
- Recipient of the Computer Science Student Leadership Award for the 2012 graduating class of the College of Engineering & Information Technology.
- UMBC Center for Women in Technology (CWIT) scholarship recipient.
- Department of Computer Science and Electrical Engineering Promotion and Tenure Committee Undergraduate Teaching Evaluator (2010 2011 academic year).

## Training and Conferences

- Attended the ACM SIGCHI (Special Interest Group on Computer-Human Interaction) annual conference in May 2012 in Austin, TX.
- Attended the Out for Work National Conference for Lesbian, Gay, Bisexual, Transgender, and Ally college students in October 2010 and 2011 in Washington DC.
- Introduction to Hadoop for Developers (UMBC Training Centers) September 2012.
- Building Applications with ASP.NET MVC (Learning Tree International) in May 2012.

## Fun School Project

#### Mastermind Game Player Agent, Introduction to Artificial Intelligence

As part of a two-person team, design a reasoning agent to play the game Mastermind. Implemented by creating a genetic algorithm to mutate possible peg and color combinations; applying constraints to the rate of mutation from generation to generation based on feedback from the gamekeeper. Additionally, successive pruning of the color search space for each peg based on feedback from the gamekeeper further restricted the number of guesses necessary to reason the final answer.