

# Hannah E. Aker

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1104 4<sup>th</sup> Street Apt A  
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## Industry Experience

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**AFMC-OCALC, 76<sup>th</sup> SMXG, 555<sup>th</sup> MXDED**, Oklahoma City, OK, *SMART Intern*

Summer 2014, Summer 2015

- Designed and implemented software tool to view and edit aircraft engine data files for use in developing and testing CETADS (Comprehensive Engine Trending and Diagnostics System), using C#, Windows Forms, WPF, XAML, and MVVM architecture.
- Summer 2014: created proof of concept program with complete functionality in Windows Forms, and created test cases for CETADS by hand using a hex editor.
- Summer 2015: improved original program using WPF, XAML, and MVVM structure, then recreated the program for a different engine.

Supervisor: Francesco Whittenberger, francesco.whittenberger@us.af.mil

## Technical Skills

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### Programming Languages:

Proficient: C/C++, C#, Java

Experience: ARM Assembly Language, LISP, Python, PHP (with use of MySQL)

### Operating Systems:

Windows 7, Linux

## Education

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**South Dakota School of Mines and Technology**, Rapid City, SD

August 2012 - Present

*Bachelor of Science in Computer Science*

Graduation Date: May 2016

GPA: 3.571

Academic Projects:

- Mobile Computing - Teamwork in Agile Scrum to create Android application to facilitate communication between students for academic purposes, using Java for Android and MVC structure. Project work at [github.com/SDSMT-CSC476/SP15-Team1-AndroidApp](https://github.com/SDSMT-CSC476/SP15-Team1-AndroidApp)
- Digital Image Processing - Teamwork to implement Hausdorff face detection, where user provides template and image and the program will identify matches to the template in the image, using C++ and Qt. Project work at [github.com/hannahaker/dip\\_project](https://github.com/hannahaker/dip_project)

Awards:

- SMART Scholarship for Service, awarded July 2013  
The Science, Mathematics And Research for Transformation (SMART) Program scholarship for service program is a national full scholarship leading to employment upon degree completion; sponsored by the Department of Defense(DoD). More information at [smart.asee.org](http://smart.asee.org)

Campus Involvement:

- Symphonic Band (1<sup>st</sup> chair Bassoon)
- Lions Club, an international community service organization
- Student Aide (Graduate Education Office), Teacher's Assistant (College Algebra Lab)

## References/Other Experience

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References and other experience are available upon request.

## Other Experience

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**SDSM&T Math and Computer Science Department**, Rapid City, SD, *Teacher's Assistant*

August 2015 - Present

- Lead college algebra lab, assist students with lab work, evaluate student lab work
- Supervisor: Dr. Donna Kliche, donna.kliche@sdsmt.edu

**SDSM&T Graduate Education Office**, Rapid City, SD, *Student Aide*

May 2013 - Present

- Process new applications, answer emails, manage applications spreadsheet in Microsoft Excel, file applications, and process incoming mail.

Supervisor: Rachel Howard, rachel.howard@sdsmt.edu, (605) 355-3468

**SDSM&T Math and Computer Science Department**, Rapid City, SD, *Student Aide*

September 2013 - February 2014

- Run trials of provided MATLAB program, created Microsoft Excel spreadsheet of results

Supervisor: Dr. Karen Braman, karen.braman@sdsmt.edu