

Allison King

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Education

- **Swarthmore College** **Swarthmore, PA**
Bachelor of Science in Engineering. GPA: 3.70 *2011-2015*
 - McCabe Engineering Award for Outstanding Engineering Student of the Graduating Class
 - *Technical Coursework:* Embedded Systems, Computer Graphics, Mobile Robotics, Video Game Design
 - *Storytelling Coursework:* Asian American Literature, Creative Writing Workshop, Tolkien and Pullman and Their Literary Roots, Contemporary Chinese Cinema
 - **Additional Courses** **Greater Boston Area**
 - Machine Learning (Boston University Metropolitan College) *Spring 2017*
 - Mobile Application Development Using Swift and iOS (Harvard Extension School) *Spring 2016*
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Professional Experience

- **MIT Lincoln Laboratory** **Lexington, MA**
Assistant Technical Staff *July 2015 - Present*
 - Serving as chief software architect for a suite of applications for open architecture systems to be utilized by the United States Air Force. Applications include a web application built on **AngularJS**, **Express**, **Node.js** and **PostgreSQL** with a REST API, and multiple **Java** programs to verify and validate distributed systems.
 - Serving as a software lead for a new program to achieve communication across multiple domains (air, space, ground, sea). Researching leading deployment technologies (Ansible, Docker) to achieve cyber secure distributed software.
 - Tested and evaluated contractor software (**Java**) for the Defense Advanced Research Projects Agency. Acted as the first user of contracted software and presented feedback to DARPA in the form of deep-dive technical presentations.
 - Contributed to the development of a fake news classifier in **Python**
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Projects

- **Our Taiwanese American Story** **January 2017 - Present**
 - Designed and implemented a **Ruby on Rails** website intended to collect and archive stories of Taiwanese Americans to preserve a collective history and to foster intergenerational and intercultural communication
 - Volunteered as the primary software developer and maintainer. Site also utilizes **HTML**, **CSS**, **JavaScript** for front end, **PostgreSQL** for a database, **Amazon S3** for file uploads and storage, and **Heroku** for deployment.
 - Worked with team to secure funding from [Taiwanese American Archives](#) to maintain site for at least two years
 - **Visualizing Harry Potter Fan Fiction: 1999-2017** **Summer 2017**
 - Scraped the metadata of 560,000 Harry Potter fan fictions with **Python** from [FanFiction.net](#)
 - Used **D3.js** to create seven interactive visualizations- examples include comparing gender representation in canon vs. fan fiction and comparing titles of stories written about straight vs. gay relationships
 - **International Movie Recommender** **Spring 2017**
 - Designed and implemented a machine learning recommender system in **Python** that attempts to counter the bubble of recommending similar movies by instead using learned preferences to recommend movies from different countries
 - **Low Cost E-Reader** **Spring 2015**
 - Built a low cost e-reader from scratch using a microcontroller, an LCD screen, an SD card, and batteries
 - Prototyped on a breadboard, programmed the microcontroller in **C**, and soldered all wires. Total cost summed to under \$50
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Skills

Computer Languages: Java, JavaScript, HTML, CSS, Python, SQL, Swift, \LaTeX
Technologies: D3.js, AngularJS, Ruby on Rails, Maven, Git, Subversion