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*

Professional Experience

- **MIT Lincoln Laboratory**   **Lexington, MA**
  Assistant Technical Staff   *July 2015 - Present*
  - Developed a suite of applications for open architecture systems to be utilized by the United States Air Force. Applications include a web application built on **Angular**, **Express**, **Node** and **PostgreSQL** with a REST API, and multiple **Java** programs to verify distributed systems.
  - Tested and evaluated contractor software (**Java**) for the Defense Advanced Research Projects Agency. Acted as the first user of contracted software and presented technical feedback to DARPA.
  - Contributed to the development of a fake news classifier in **Python**

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
  - Served 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 always recommending similar movies by instead using learned preferences to recommend movies from different countries

- **Weasley Clock**   **Spring 2016**
  - Wrote an iOS application in **Swift** to track the user and their family members/friends' locations and have these locations be displayed on a clock interface with locations such as 'School' and 'Work'

- **Low Cost E-Reader**   **Spring 2015**
  - Built a low cost functioning e-reader from scratch using a microcontroller, an LCD screen, an SD card, and batteries.
  - Prototyped on a breadboard, programmed the microcontroller in **C**, hand soldered all wires, total cost summed to under $50

Skills

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