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ARTHUR KOEHL

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EDUCATION

University of California Davis   **Expected 2017**

> Bachelor of Science in Computer Science
> Bachelor of Arts in History
> Bachelor of Arts in Economics

INTERNSHIPS

Data Science Initiative (UC Davis)   **2015 – present**

> Worked with Dr. Carl Stahmer on EBBA (English Broadside Ballad Archive project). EBBA is a website that hosts over 10,000 English Broadside Ballads made accessible as both a scanned image of the broadside as well as its trasncription. Set up LAMP environment, updated website source code to newer version of PHP (5). Cleaned code and provided documentation for the people who would replace me.

> Worked on ArchV (Archive-Vision), a project written in cpp that calls many functions from the OpenCV library. The project categorizes the ballads of EBBA based on recurring figures in their images. Using SURF feature detection, a dictionary of features from the ballads is created. Each ballad is then assigned a histogram based on the frequency of the features. Distance between each histogram is calculated. The histograms are then indexed using Lucene.

Mechanobiological Institute/ Centre for Bio imaging Sciences (NUS)   **Summer 2013-15**

2015
> Worked with system administrator Al Davis to create a customized pyenv for CBIS lab. Created environment for python wherein users could request python modules as well as change easily between python versions.

2014
> Wrote programs in cpp and bash to benchmark different scientific computing libraries. Compared the time it took each library to perfom a matrix multiplication at various numbers of cores. Wrote the matrix multiplication programs in c for ATLAS, GSL, MKL, and openblas, and used cpp for eigen library. Finally tested them and recorded their times using a shell script written in bash.

2013
> Worked on a python script that parsed a text file that contained data usage statistics for the department and performed basic arithmetic analysis on the data. The data was then placed in an excel spreadsheet and graphed in excel. The script would be run weekly by the department.

National University of Singapore (NUS)   **Summer 2012**

> Worked with Dr. John Van Wyhe on the Wallace Online project (wallace-online.org) and updated his previous project the Darwin Online (darwin-online.org.uk). Transcribed high quality scans of primary source writings from Wallace, especially his letters from South East Asia. Used adobe Dreamweaver to add pages from Darwin's Beagle journey notebooks to the Darwin online website. Prepared thousands of photos to be added to both websites. Worked with Dr. van Wyhe to find and fix technical problems with the websites.

LANGUAGES AND SKILLS

C, C++, Python, PHP, HTML, MySQL, bash, OpenCV, Pyenv, VirtualBox, Apache, Bag of Words analysis, Jetty, Java