Jackie Kay

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EDUCATION

Swarthmore College   **GPA: 3.63 (Computer Science: 3.84)**

Graduation: June 2014
Computer Science Major, Double Minor in Engineering and Mathematics

Relevant Coursework: Fundamentals of Digital Systems, Data Structures and Algorithms, Mobile Robotics, Computer Vision, Theory of Computation, Natural Language Processing, Computer Architecture, Humanoid Robotics, Computer Networks, Artificial Intelligence, Adaptive Robotics, Operating Systems

Languages: Proficient in C/C++, Python, Java, and Javascript.

PROJECTS

Charcoal
An open source C dialect for intuitive cooperative threading.

FaceLibs
A natural language processing app for Facebook which replaces the names of characters in a work of fiction with the user's top friends.

OpenSwype
An open source continuous stroke input ("Swype") keyboard for Android phones.

Camtango for Android
An event-centric, location-aware photosharing application for Android.

Eigencats
A computer vision system for feline facial recognition via principal component analysis and singular value decomposition.

Augmented Reality Dots and Boxes Game
An augemented reality setup which projects a game board onto a real surface and utilizes computer vision to process drawing input, then provides visual feedback based on game rules. Image rectification was implemented via homographies and filtering, while classification was accomplished by normalized correlation.

WORK EXPERIENCE

Summer Scholar, Carnegie Mellon Robotics Institute   **Summer 2013**
Led a project on time-dependent, resource-constrained path planning for an autonomous planetary rover. Designed a C++ simulation modeling rover energy expenditure and thermal levels. Project expected to culminate in a research paper.

Mobile Robotics TA, Swarthmore College Engineering Department   **Fall 2012**
Provided support for students in ROS, Linux usage, and robotics theory. Administered Git repositories for homework backup and submission.

Lead Android Developer, AgileZoom, LLC   **Summer 2012**
Singlehandedly responsible for development and publication of all Android products for Agile-

Zoom, Camtango and ici.

Research Assistant, Swarthmore College Engineering Department   Summer 2011

Designed a utility for selecting and storing color profiles from a robots field of view to aid computer vision tasks. Coded data structures for occupancy grid mapping. Simulated wireless signal strength localization in MATLAB and C++.

Honors and Awards

RISS REU   **2013**

NSF research grant for undergraduates awarded by the Carnegie Mellon Robotics Institute.

William Plumer Potter Fiction Award   **2013**

Swarthmore Department of English Literature's prize for best student short story.

Hurd Summer Research Fellowship   **2011**

Competitive fellowship for undergraduate research in the sciences and engineering.

Leadership Experience

President, Women's Ultimate Frisbee Team   **2013-2014**

Lead organizer of the Warmothers, Swarthmore's nationally ranked women's Ultimate Frisbee team.

Resident Assistant, Swarthmore College Office of Residential Life   2012-2014

Serves as a peer counselor and advisor to students in matters of residential life, safety and overall well-being. Acts as a liaison between students and college administration.