

Spectrum AeroMed Project Prospectus

1.0 Team Members

The following people have been assigned to the Spectrum AeroMed project. Each team member has provided a list of their technical skills as well as a list of skills the team member wishes to learn or strengthen through the semester.

1.1 Brody Berson

Technical Skills:

- Java
- Ruby
- Ruby on Rails
- Git
- Usability and Design
- Agile Methodology
- Adobe Photoshop/Illustrator

Desired Technical Growth:

- iOS Development
- MVC Design
- Web Development

1.2 Kyle Schelhaas

Technical Skills:

- C/C++
- Java
- OpenGL
- Android development
- GUI design
- HTML/CSS

Desired Technical Growth:

- iOS development/Objective-C
- Python
- Ruby
- Web application development
- Databases

1.3 Mario Galeno

Technical Skills:

- C/C++
- Java
- Ruby
- LISP
- Usability & Design
- Photoshop/Illustrator Design

Desired Technical Growth:

- iOS Development/Objective-C
- MVC
- Databases

1.4 Michael Torres

Technical Skills:

- Android development
- iOS development
- Windows Phone 8 development
- Java
- Objective-C
- Python
- Databases
- Git
- MVC design
- Software design patterns

Desired Technical Growth:

- Software design methodologies
- Advanced iOS development
- Website development
- Image editing and design

2.0 Project Description

After our initial meeting with AeroMed we all learned a lot and know there is a lot more to learn over the next few months. Since AeroMed's initial contact with Grand Valley, the iPad App Project keeps evolving and the scope keeps expanding and we have been expected to create a solid foundation and a smaller application as a version 1.0 that they can take over after our time is done and build upon more and more features upon that.

Currently, AeroMed uses iPads mid-flight to condense huge binder's of information down to a couple pound tablet and ease the workflow. This is useful to them as they can keyword search through PDFs and pull up sort of check lists to be able to see a diagnosis, medicine checklist, vital checklist, and patient checklist. With it being a PDF in just a viewer, they currently can not interact with it at all and have to search every one and just "remember" which has been done already or mark it down on a piece of paper. This is the workflow our team will aim to improve.

Our AeroMed application will be able to digitalize a form to take down information about the patient where they are picking them up from and to, condition, medicine taken already and many other fields. As well as be able to provide all the information currently in the PDFs for diagnosis to be able to interact with the checklists and save them off, ideally, to their existing database. The reason we said ideally is because they are still in talks about the database situation as it most likely has to pass several layers of authorizations such as FAA, HIPAA, etc. Implementing these abilities into the application would save AeroMed employees many hours. Also, this would reduce the amount of duplicate work that they have to do while increasing the safety and reliability of their service on each of the flights.

3.0 Planned Features

We haven't been able to talk too much about the exact layout and features of the app yet, but this is something we're planning on covering in upcoming meetings with AeroMed. With only a high level overview of the app so far, these are a few of the features our app will include:

- Look up required procedure for common patient conditions
- Medical staff can utilize checklists for standards
- Easily view and navigate proper guidelines
- Leaders can analyze performance of staff
- Dashboard/report generated from checklists filled out after care given to patients
- Automatically update database upon completion of paperwork