

Project Tender

Project: Willburg SMART Image Identifier

Client: Willburg Outdoor PTY(ltd.), W.A Burger

Team: Ambitious Designs

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The Team

Killian Ferdinand Noel Kieck



Interests

- Programming.
- Reading.
- Sports.
- Technology.
- Space.
- Gaming.

Technical Skills

- Information Technology.
- Coding / Programming (Java, C, C#, C++, JavaScript / jQuery, HTML / css, android).
- Database design and management.
- Software design and development.
- Computer networking.
- Testing.

Past experience

- Web design.

Non-technical strengths

- Quick Learner.
- Communications skills.
- Initiative.

Why I want to do the project:

This is a great opportunity to learn about image detection utilities, effective database management and sorting algorithms, this project offers good experience with challenging aspects. Also a chance to build software which can save the lives of people and animals all over the world.

Stephen Swanepoel



Interests

- Programming.
- Nature and wildlife.
- Sports.
- Technology.

Technical Skills

- Information Technology.
- Programming (Java, C, C#, C++, JavaScript / jQuery, HTML, CSS).
- Database design and management.
- Software design and development.
- Computer networking.
- Testing.

Past experience

- Web design.

Non-technical strengths

- Quick Learner.
- Good communications skills.
- Initiative.
- Team player.

Why I want to do the project:

From a developers aspect I am interested in this project as I feel it will push me out of my comfort zone and become an interesting learning outcome. I will be exploring new technology which is vital to me as I would like to obtain a strong and diverse skill set regarding software development. Working on an image processing system would assist me in my personal goals to diversify my skill set.

Dian Johan Veldsman



Interests

- Programming
- Reading
- Technology
- Gaming
- Watching Movies
- Snooker
- Surfing the Internet

Technical Skills

- Information Technology
- Coding / Programming (Java, C, C#, C++, JavaScript / jQuery, HTML / css, android, Python)
- Database design and management
- Software design and development
- Computer networking
- GoF Design Patterns
- Concurrent Systems
- Testing

Past experience

- Web design
- Android development

Non-technical strengths

- Good coding habits
- Active participation
- Problem solving
- Willingness to learn
- Team player
- Hard working

Why I want to do the project:

Crime in South Africa has unfortunately grown exponentially over the past decade. With this project a person will be able to detect if an unknown intruder is lurking about around the house. The reason why I would like to do this project is to be able to use it as an effective early detection device. The project will also allow me develop new and diverse skills, as well as improving on existing skills.

Tim Kirker



Interests

- Sporting activities (both spectating as well as participating).
- Computing whether it be programming or online gaming.
- Music (both listening to it as well as playing musical instruments).
- Reading and keeping up to date with current affairs.

Technical Skills

- Programming (Java, C++, JavaScript, Microsoft access, PHP and android development).

Past experience

- Free-lance web developer, mathematics tutor and various promotional jobs in the retail sector.

Non-technical strengths

- Outgoing
- Good communications skills.
- Hard working.
- Diligent.
- Work well under pressure.

Why I want to do the project:

The current epidemic of wildlife poaching and farm attacks is at an all-time high and this project design gives an opportunity to rapidly identify threats and notify those in charge. It would be a privilege to be involved in such a project with potential to save numerous lives, and bring justice to intruders. This project would also act as an opportunity for me to improve my skill set and increase my knowledge in computing.

Project Execution

Development methodology:

We have decided to use the agile methodology as it allows us to deliver working segments frequently to you (the client), allows for regular adaption to changing circumstances and forces us to continuously look over the software with each new feature release to ensure continuous attention to technical excellence as well as a good design.

How we intend to keep you informed about the status of your project:

Correspondence via email as well as a few scheduled meetings.

Initial ideas for solving some of the technical challenges:

OpenCV (*Open Source Computer Vision*) will provide guidelines on how to go about tasks and any problem areas, it is existing software available for public use. Other problems will be overcome through extensive research, with having little to no experience with such a project we are unaware of most of the technical issues we will be facing which makes it difficult to state how we would approach solving them. Team effort will be a key factor to the success of this project.

Technologies we plan on using:

C# or C++. Both languages are fast and powerful, providing many tools to assist in the development of this software. OpenCV (*Open Source Computer Vision*) is a library of programming functions mainly aimed at real-time computer vision is written in C++, this software is available for use which will assist us throughout the course of the project.

What you (the client) will receive at the end of the project:

- Source code for the SMART ID APP.
- Architecture of framework.
- User manual.
- Built and deployed scripts.