Date: February 3rd, 2009

To: Dr. Karen Schairer

From: Babel Squad

Subject: Team Inventory



I would like to introduce you to team Babel Squad. It will be our focus over the next semester to develop for you a web based adventure game engine.

#### **Members**

- Richard Lester
  - Team leader
  - Strong basis in game programming
- Joe Flieger
  - Multimedia developer
  - History in digital media, web programming, and game development
- Dean Dobransky
  - Client side developer
  - Background in java development
- Travis Hudson
  - Website administrator
  - Team Secretary
  - Client side developer
  - Past work in web programming, database design and java-script.

#### **Tasks**

Our short-term goals are to write the official requirements of the project, as well as create a prototype product. This will be a very simple attempt at creating the skeleton framework of the product. It will be ugly, but usable. To accomplish this, our team will work in close cooperation to both develop the framework, and acquire the basic skills for the project. By taking a few days to devote heavy development time with the team, in person, we can both get a jump start on the project, and those of us without web background can benefit from the experience of the others, and quickly pick up the necessary skills.

In order to get our prototype off the ground we will need a way of retrieving videos, and playing particular clips from those videos based on information from a database. In addition, that information needs to editable from a web interface.

# Joe Flieger

Hello, my name is Joe Flieger and I am a senior in the Computer Science program at Northern Arizona University.

# **Computer Science (Electives)**

Virtual Worlds
Topics in Game Production
Advanced User Interfaces
Intro to Intelligent Systems
Web Programming
Enterprise Web Computing
Embedded Systems

# Computer Science (Requirements)

Software Engineering
Automata Theory
Principles of Languages
Algorithms

#### Math

Intro Linear Algebra
Intro to Numerical Analysis
Laplace Transforms

Along with my above experience, I took an Undergraduate Research course with Dr. Palmer in which I assisted in the development of Ginger, a functional programming language designed for the scientific and academic community. I feel this class was one of the most beneficial classes I have taken at NAU because I worked one on one with a teacher while developing in a nearly real world environment.

In the past year, I have found that, my ability to conceptualize and not only find problems in code but also fix them is better than many of my fellow students. More formally, I am good at designing and debugging and I excel at picking up new things rather quickly.

Because of this quick learning curve, my personal interests are diverse but some that I think apply to this project would include but obviously not be limited to the following: video, audio, games, Spanish, and Web Programming.

# **Dean Dobransky**

# **Upper Division Courses Taken**

CS 315 - Automata Theory

CS 345 – Principles of Database Systems (currently enrolled)

CS 386 - Software Engineering

CS 396 - Principles of Languages

CS 413 - Virtual Worlds

CS 421 - Algorithms

CS 445 – Data Mining

CS 480 - Operating Systems

CS 499 - Information Retrieval and Web Search

MAT 316 - Introduction to Linear Algebra

I don't have any programming experience outside the confines of the courses which I've taken here at NAU. This is because I already have a career started for which programming is not applicable. However, where my technical skill may be lacking, I make up for in my design ability and my proficiency in team environments. Part of this comes from my career in the military, as one of the key components of my job is to create quickly plans of action that are both realistic and efficient in a team environment.

This is not to say that I have any doubts in the implementation of the design. While I have little experience with the technologies we plan to use, I have with me three other exemplary students at my aid. I am confident that all of us will not only fill the gaps in each other's skill sets but also I feel as a team we will overcome any gaps that exist.

I am especially excited for the level of creativity that this project will require and am certainly enthused by the idea of creating a solution in the game paradigm. This approach, I feel, is a proverbial carrot on a stick that only gives further drive to creating a polished and respectable product.

This project is also of special interest to me because of the subject matter involved. I have never been able to become very proficient in a foreign language. Anything that is written down I would have no problem with but when it came to speaking and listening I just couldn't grasp it, even after four years of Spanish classes. Being from southern California, this was a skill that I feel is invaluable. As you have said, and which I firmly believe, what we are creating will undoubtedly help people like me to become proficient in a language.

## **Richard Lester**

I am a senior this semester and I have had experience in a wide variety of classes. I am not particularly experienced in web programming, but I have experience in fields such as AI, game programming, and computational language.

## **Upper division courses**

MAT 316 - Linear Algebra

CS 315 - Automata Theory

CS 386 - Software Engineering

CS 477 - Advanced User Interfaces

CS 396 - Principles of Languages

CS 413 - Virtual Worlds

CS 470 - Introduction to Intelligent Systems

CS 499 - Enterprise Web Computing

CS 421 - Algorithms

CS 430 - Computer Graphics

CS 481 - Compilers

Professionally, I have worked in tech support, and scientific computing. In tech support I learned how to cooperate in groups, and in Lawrence Livermore National Laboratory and Translational Genomics, I have professionally developed software in Python and Java.

This project, provides me with a new challenge working in a foreign environment. Nonetheless, I can still carry my architecture and development knowledge into this new field. I do have experience in game design, and I understand the effort, and attention to detail that goes into creating a final rounded game. Having designed entertainment software before, I also have a clear approach to the development, and I have gained an intuition in development methods.

For this project I am excited to design what I see as a flexible, extensible, web based game engine. I see potential for this learning system to be used not only for language learning, but for any situation based learning, for which you want the student to see the consequences of their answers in a that situation. I find this to be a satisfying hybrid of academia and electronic entertainment.

### **Travis Hudson**

### **Upper Division Courses**

MAT 316 Introduction to Linear Algebra

CS 315 Automata Theory

CS 345 Principles of Database Systems

CS 386 Software Engineering

CS 477 Advanced User Interfaces

CS 396 Principles of Languages

CS 413 Virtual Worlds

CS 470 Intro Intelligent Systems

CS 480 Operating Systems

CS 301 Ethics in Computer Science

CS 421 Algorithms

CS 481 Compilers

CS 485 Independent Study (Engineering an evolution-based library for a new language called Ginger that is under development by Dr. Palmer)

## **Work Experience**

Research Assistant on the DEMS project from June 2007 to May 2008 Software Systems Assistant Engineer for the SCAN team at NAU (Student Computing and Networking) June 2008 to the present time

### **Special Skills and Personal Interests**

I am the only member of Babel Squad who has used the JavaScript library called JQuery, and I have used it rather intensely, for non-trivial web software engineering. Using that library is a particular interest of mine. I have used PHP for basic web forms and to-do lists.

I am excited to be working on this language-learning software, because I understand the importance of learning how to translate language as it is spoken naturally, despite rapid talking or the use of unfamiliar slang. It will be an exciting challenge to come up with an intuitive interface that can help students learn languages better through the use of adventure games.