Team Inventory

Jet Propulsion Laboratory Image Analysis
Team Hindsight
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Dr. Doerry

Overview: Formally this document is to provide an introduction of team members as well as the traits that each person adds to the group. Each member will have an introduction and then a description of attributes applicable to the project including education, work experience, and other skills. This is to provide not only the team members but the client with information regarding the group.

Charles Beck

Introduction: I am a fifth year student at Northern Arizona University, soon to graduate with a B.S. in computer science. I am very excited to be working on this amazing project. I am originally from Goodyear Arizona but have lived in Flagstaff since 2013.

Education:
    High School:
        Desert Edge Graduated 2013 GPA 3.7
    College:
        Northern Arizona University Bachelors of Science Computer Science
        Currently attending.
    NAU Courses:
        CS 460 Networks
        CS 430 Computer Graphics
        CS 399 Mobile App Development
        CS 345 Databases
        CS 315 Automata Theory
        CS 421 Algorithms
        CS 499 Parallel Programming
        CS 386 Software Engineering
        CS 396 Principles of Languages

Skills:
    Programming languages (C, C++, JAVA, Python, JS, Assembly)
    Interpersonal/intrapersonal conflict resolution
    Technical problem solving

Interests:
    Intergalactic Space
    UI/UX
    Game engines

Alexanderia Nelson

Introduction

I am a Computer Science major at Northern Arizona University. I previously studied for two years at Estrella Mountain Community College before transferring to Northern Arizona University to finish my undergraduate. I currently reside in Phoenix, AZ.

Education

High School:

Dysart High School GPA – 3.6

College:

Estrella Mountain Community College

Northern Arizona University

Upper-Division Courses Taken:

Astrophysics: Stars - AST 391

Computers and Society (Profressional Ethics) - CS 301

Automata Theory - CS 315

Software Engineering - CS 386

Principles of Languages - CS 396

Intro to Intelligent Systems - CS 470

Operating Systems - CS 480

Technical Writing - ENG 302W

Introduction to Linear Algebra - MAT 316

Work Experience

- Internship at Lowell Observatory. Contributing to developing a program to analyze and reconstruct images from speckle data.

Skills

- Code Analysis: For my internship, I have to analyze code written in IDL and C to understand how it works to then translate into Python or work with Python code.
- Code Documentation: I picked up this skill from Operating Systems and my internship by writing necessary documentation to help people reading the code understand how the code works.
- Programming Languages: Over the course of both my undergraduate and internship, I have picked up multiple languages, i.e. Python, IDL, C, Java, and Scheme.

Interests

- Astronomy
- Cooperative Board Games
- Human-Computer Interaction
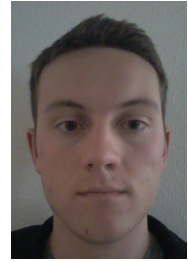
Adam Paquette

Introduction
I am currently in my fourth year at NAU, and will soon graduate with my bachelors degree in computer science, along with a minor in mathematics. I have grown up and still live in Flagstaff.

Education
>High school:
>>Flagstaff Arts and Leadership Academy - 3.5
>College:
>>Northern Arizona University - 3.94
>>Currently Attending.
>NAU Upper-division Courses:
>>CS 301 Computers and Society
>>CS 315 Automata Theory
>>CS 345 Principles of Database Systems
>>CS 386 Software Engineering
>>MAT 316 Introduction to Linear Algebra
>>MAT 320W Foundations of Mathematics

Work Experience
- Internship at USGS from May of 2016 to current. Mainly working on autocnet, an API to automatically match images, and generate a control network of images for mosaics. I also work on maintaining, and doing feature integration for I.S.I.S. a suite of tools for creating image mosaics.

Skills

- Familiarity with computer vision: worked on and developed code for autocnet that uses computer vision. This mainly involved using OpenCV in python to do feature extraction on images
- Versed in many different programming languages, eg: python, C++, java, C# (unity game engine), sql. Most of these languages I have picked up during my time at the USGS and while studying at NAU.
- Code documentation and testing: I have developed good code documentation, and testing skills during my internship at the USGS.

Interests
- Mountain Biking
- Developing Computer Games
- Computer Vision

Hunter Rainen

Introduction
I am on my fourth year at NAU, about to graduate with a BS in Computer Science. My hometown is Santa Clarita in Southern California.

Education
High School:

Canyon High School - GPA - 3.3

University:

Northern Arizona University - Current GPA - 3.43

Upper division courses:

CS 386 Software Engineering, MAT 316 Introduction to Linear Algebra

CS 396 Principles of Languages, CS 315 Automata Theory

CS 413 Virtual Worlds, CS 421 Algorithms, CS 399 Mobile Application Development

CS 301 Computers and Society (ethics), CS 470 Introduction to intelligent systems (AI)

CS 345 Principles of Database Systems, Eng 302w Technical Writing

Work Experience
- Internship summer of 2017 at JPL automating testing procedures and exploring possible solutions to abrasion dust problem.

Skills
- Inside knowledge about the project and JPL internal testing.
- Familiarity with many programming languages, eg: Scheme, Prolog, Assembler, JavaScript, Blueprints (Visual scripting in Unreal Engine 4), MATLAB.
- I am most familiar with Python, C++, and Java mostly through my time here at NAU.
- Managed/ worked in a small team in a software engineering class to build a prototype for small business analytic tool
  - that produces customizable interactive visual representations of correlations between employees, customers, and standard business operations (such as products sold and to whom)
  - I helped create documentation for the development process as well as determine appropriate fields to use for data analysis and what correlations to draw from the data that was generated.

Interests
I enjoy programming and often find myself reading about new technologies. I have a wide variety of interests, including: Artificial Intelligence, Image processing and Computer Vision, designing and programming computer games, Statistics, cooking, competitive gaming.