

Northern Arizona University



Team Inventory Document

GeoKings - GeoStac

Sponsors - USGS

Andrew Usvat, Zack Bryant, Alexander Poole,  
Jackson Brittain, John Cardeccia

CS476

Dr. Leverington

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## **Overview**

This document will serve as an introduction to the members of the GeoKings team. Contained within the following pages will be a highlight of their educational and professional experience, and any other relevant skills or interests.

**Alex Poole**  
**BS Computer Science**  
**Flagstaff, AZ**



## Education

Hamilton High School (2014-2018) 4.6 GPA  
Northern Arizona University (2018 - Current)

Courses:

- 1) CS421 Algorithms - This class went into depth on the mathematical foundation of algorithms and analysis of their runtimes.
- 2) CS480 Operating Systems - This class went in depth on the topic of operating systems and how they function on the lowest level. Additionally, the students were tasked with creating an operating system simulator to implement their knowledge on the components of operating systems.

## Work Experience

No applicable experience

## Skills

Full Stack Skills - I have worked with a variety of languages and frameworks that vary in level. I have the flexibility to see problems through many lenses to best approach the solution.

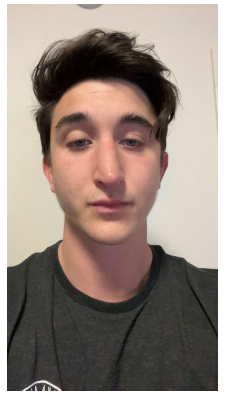
Mathematics - I have completed all of the requirements necessary to obtain a minor in Mathematics from NAU with the exception of one class. My knowledge of mathematics influences how I approach programming problems.

## Other Interests

Data Analysis - With my background in mathematics, I find big data fascinating and I want to do more projects in this area in the near future

Machine Learning - I enjoy the principles of machine learning and want to contribute in some way to this growing field.

**Andrew Usvat**  
**Applied C.S**  
**Phoenix, AZ**



## Education

Pinnacle High School (2016-2020) 4.0 GPA  
Northern Arizona University (2020 - Current) 3.9 GPA  
Courses:

- 1) CS480 Operating Systems - this course involves creating a semester long operating systems simulator along with weekly quizzes designed to test your knowledge of operating systems.
- 2) CS345 Database Systems - this course involves basic concepts in database systems including data manipulation, and data definition language.

## Work Experience

DiscoverCCRI project at NAU - sole developer in charge of the informational site and worked with backend developers to create a portal system.

2022 Seminaut Inc. Summer Internship - developed frontend and backend software for a gaming agency.

2022 iDayDream Studios Internship - designed frontend interfaces for client businesses in a team environment.

## Skills

Web development / Hosting - I have over 5 years of experience in developing, designing, and hosting websites for agencies, local businesses, schools, and private clients. Some of this experience is obtained from the "Work Experience" section above.

Backend programming - I have over three years experience from Northern Arizona University with backend development. I have obtained experience from the courses taken at the university, some of the courses are mentioned above under the "Education" section.

## Other Interests

Creating websites/mobile apps - this involves both coding an application using frontend/backend languages and frameworks as well as fully designing them from scratch.

Cybersecurity - this involves learning general cybersecurity concepts and implementing knowledge through use of programming languages.

**Jackson Brittain**  
**Applied C.S**  
**Gilbert, AZ**



## **Education**

Basha High School (2016-2020) 4.0 GPA

Northern Arizona University (2020 - Current) 3.3 GPA

Courses:

1) CS430 Computer Graphics - In this course we used C in order to create a raytracer and a couple of libraries in order to assist our programs such as a PMM file converter and vector math.

2) CS249 Data Structures - this course involves data structures such as trees, linked lists, and others. Additionally we were taught how to properly use object oriented programming.

## **Work Experience**

CS 386 Newstr News Project - Back end developer for a web app called Newstr News That relied heavily on API calls to receive news and deliver to a user's email.

## **Skills**

Computer Graphics - I have experience in computer graphics specifically in vector graphics and file formatting.

Backend programming - Experience in backend web app development and API experience along with learning and teachings from NAU for the past few years.

## **Other Interests**

AI - I have some experience in AI and have attempted to create a few games using AI. A recent example is CS470 here at NAU but I have prior experience building a chess game in the past.

**John Cardeccia**  
**Applied Computer Science, B.S.**  
**Flagstaff, AZ**



## Education

Kingman High School (2000-2004)  
Northern Arizona University (2021 - Current)

Courses:

- 1) CS 345 Database Systems - This class provided foundational knowledge of how databases are designed and built, as well as practical experience in programming and interacting with these databases using MySQL and Python
- 2) CS 480 Operating Systems - Operating Systems provided a deep dive into the inner workings of operating systems and how they interact with hardware such as memory, storage, and the CPU. CS 480 did this with a mix of lectures and hands-on experience designing an operating system simulator using the C programming language.
- 3) CS 386 Software Engineering - A required prerequisite for this course, CS 386 provided insight into how successful software is developed and for the first time provided experience working with a group, on a single project, for an extended period of time.

## Work Experience

No applicable work experience

## Skills

Programming - I have had four semesters of classes here at NAU writing programs as a part of my coursework, primarily in C but with other classes taught using Python, MySQL, HTML, and Java.

Linux - I have used Linux as a “daily driver” operating system since about 2015 and as a result I'm very comfortable using the operating system, including the use of the command line.

Attention to detail - Admittedly a soft skill compared to a technical one, but no less important. Writing programs ranging from a couple hundred to a couple thousand lines has taught me that it ultimately saves time and stress to pay attention to the details.

## Other Interests

Cybersecurity - There is something truly fun in learning how to defend systems from malicious attackers, or how to break systems in order to better understand how to defend them.

Backend Systems - Purely for the enjoyment of it, I built and run my own home server. I will also utilize cloud providers such as Digital Ocean simply to work with and learn about server software and services; Linux, Docker containers, firewalls, SSH keys, and the like - I just like figuring out how they all work.

**Zack Bryant**  
**BS Computer Science**  
**Flagstaff, AZ**



## Education

Desert Vista High School (2010-2014)  
Northern Arizona University (2020 - Current)

Courses:

1) CS480 Operating Systems - Goal of the class was to make an operating system simulation while teaching technical abilities of operating systems such as threads, CPU scheduling, and making memory-leak free code.

2) CS460 Computer Graphics - Taught me the basics of computer graphics and how to implement and render graphics via code in C.

## Work Experience

Saturn Spirit Full Stack Developer- Deployed A website from ground up on remote server. Made a RESTful API, designed database schemes and designed the website for dynamic scalability.

Project Lead at Gila Byte - Worked with a team of five as game lead, QA tester, programmer, and artist. Did managing work such as declaring tools the team would use, leading meetings, and conflict resolution within the team.

Assistant Production at Westcom - Assemble and program nurse call equipment to be used in hospitals across the world. Also responsible for seeing orders from start to finish.

## Skills

Web Development- I have made websites from scratch taking care of the backend, frontend, databases, deployment operations and architecting. I also aim to make all of my websites as accessible as possible and am experienced in styling websites to be compatible with as many devices as possible.

Computer Graphics - Have taken a graphics course at NAU where we created a C program to take in a text file of objects to render and then displayed said objects to a picture file using illumination, reflection, ray-casting, and color. Can also animate simple scenes such as a ball moving through space.

## Other Interests

Video Game Development - I have a passion for stories, art and music. Video game development allows me to express myself in these ways while also allowing me to use my experience as a programmer to make these visions come to life.