

Team Inventory

2/8/2024



CRAFT (Ceramic Recording Automation and Classification Team)

Project Sponsor:
Dr. Leszek Pawlowicz

Faculty Mentor:
Vahid Nikoonejad Fard

Team Members:
Kimberly Allison
Aadarsha Bastola
Alan Hakala
Beatriz Ortega
Nicholas Wiley

Overview: The purpose of this team inventory document is to briefly introduce the members of our team. The following pages briefly outline the training, skills, and relevant experience of each team member.

Name: **Aadarsha Bastola**
Major: **Computer Science**
Hometown: **Dharan, Nepal**



Education

Uniglobe Secondary School – GPA: 3.05

Northern Arizona University – Bachelor's in Computer Science:

Highlighted Courses: CS 470 (Ongoing), CS 396, CS 386

Work Experience

Flutter Developer: Crumet Tech (Pokhara, Nepal - Remote):

I developed a cross-platform cryptocurrency wallet application using Flutter framework on both iOS and Android platforms. I worked closely with an agile software development team to complete various epics through sprints working in conjunction with developers and engineers from external companies/startups.

Skills

Skills I have obtained over the years relevant to the project but not limited to:

- **Flutter:** Learned on my own looking at documentation and courses on the internet. I have created pretty advanced projects using this framework like Uber Clone, and Laundry Platform app.
- **React:** Learned on my own looking at online tutorials. I am not fully proficient yet, but I can get things done looking at documentations.
- **UX/UI design:** I have honed these skills by following great design conventions like Material Design, SwiftUI, and even custom design patterns for my various projects.
- **Node.js:** I also learned NodeJs on my own and used it as a backend for several projects and used it in a few classes as well.
- **Git:** Git is the version control I have used in all my projects till date, and even as a developer while I was working for Crumet Tech.
- **Firebase/Supabase:** These are some NoSQL database solutions for a software, I have used them on most of my projects.
- **Python:** I have used python for a very long time, being a very versatile language it is my go-to general purpose language.
- **Linux:** I have used this to for servers mostly, I am pretty proficient for the basics of it.
- **C/C++:** Learned and used for various classes.
- **HTML/CSS:** Used in various classes and projects.

Other Interests

I am a technology nerd, I like being up to date about new technologies, I follow various media/journalists to keep me up to date about the latest tech. I also love watching and playing soccer, I am a FC Barcelona fan. I also like playing video games at free times, GTA, Call of Duty, Battlefield, Elden Ring, these are my absolute favorite video games.

Please visit my website aadarshabastola.com to get to know more information about me.

Name: **Beatriz Ortega**
Major: **Computer Science**
Hometown: **Phoenix, Arizona**



Education

Maryvale High School – GPA: 3.3

Northern Arizona University – Bachelor's in Computer Science:

Highlighted Courses: CS 386, CS 345, CS 396 (Ongoing)

Arizona State University

Highlighted Courses: CSE 310, CSE 365, CSE 330

Work Experience

Team Member: CS 386 Group Project (Flagstaff, Arizona):

I was in a group where we designed a Scouting website. My group and I rotated roles every week, so we each got to have experience in all aspects of a project.

Skills

Skills I have obtained over the years relevant to the project but not limited to:

- **C/CC++:** Learned and used for various classes.
- **Java:** Learned and used for various classes.
- **Python:** I have not used Python very much for class assignments, but I have spent my own time learning it.
- **Linux:** I am familiar with it and used it for my computing tools class.
- **Web development:** I took a web programming class. In this class I learned how to make interactive webpages.
- **Node.js:** I used this in my web programming class.
- **HTML/CSS:** I became very familiar with them in my web programming class.
- **Git:** Git is the version control I have used in all my projects till date.
- **SQL:** Learned and used in a database systems course.

Other Interests

I like reading articles about new improvements in technology. In my free time I enjoy reading books. I also like to watch shows and movies.

Name: **Alan Hakala**
Major: **Computer Science**
Hometown: **Minot, North Dakota**



Education

Catalina Foothills Highschool – GPA: 3.7

Northern Arizona University – Bachelor's in Computer Science:

Highlighted Courses: CS 480, CS 450, CS 470 (ongoing)

Work Experience

Back End Developer: CS386 Web Application Development Team (CS 386; Flagstaff, Arizona; 2023)

For my semester project in CS 386 I worked with a team of 5 other developers to create a web app that would allow for streaming, playlist creation, and other streaming site functionality from multiple different sources e.g. listening to a playlist with music from Spotify, Soundcloud, YouTube Music, etc...

Skills

- **SQL, PostgreSQL:** Learned while I was developing a database for a website which would store sensitive credentials and user information.
- **Cuda:** Experience developing GPU programs from my own studying and from CS 453 which I am taking this semester.
- **Node.js, Next.js:** While developing a web application I utilized Next.js to implement server-side rendering to ensure the site's consistency across clients.
- **Git:** I have utilized Git as the main version control for a multi month development project, as well as general practice using Git from the computing tools classes.
- **Cypress, Valgrind:** For the development of a web application I utilized cypress to implement automated testing to ensure commits made to our git passed necessary tests. I have also used Valgrind for profiling and debugging large-scale C programs.
- **Server Management:** Experience managing a Virtual Private Server and developing server programs from CS 460, which I am currently taking
- **OpenMP, POSIX:** Experience developing parallel programs using tools from openMp and POSIX libraries from CS 450 and CS 480. I also have experience developing parallel GPU programs from CS 453, which I am currently taking.
- **Email client development:** From CYB 404 Networking Security I have experience developing SMTP clients for things such as automated mail distributors and spammers.
- **Javascript, React:** Experience developing a web application using React for front end presentation.
- **C/C++:** Experience developing large scale C and C++ applications from primarily CS 480 as well as CS 396 and CS 450.

Other Interests: For tech related interests I really like reading about current developments in cybersecurity and law surrounding privacy rights. Unrelated to technology I really enjoy playing and making music, I play mostly piano and a little bit of trumpet. I also enjoy lifting weights and running. I enjoy watching combat sports also and have recently gotten into boxing for fun.

Name: **Kimberly Allison**
Major: **Computer Science**
Hometown: **Anchorage, Alaska**



Education

Eagle River High School – GPA: 3.5

University of Alaska Anchorage

Arizona State University

Highlighted Courses: CSE 310

Northern Arizona University – Bachelor's in Computer Science:

Highlighted Courses: CS 386, CS 460 (Ongoing), CS480 (Ongoing)

Work Experience

Team Member (CS 386): Developed a calendar application with a group of six members utilizing React.

Teaching Assistant (CS 136): Graded assignments and provided one-on-one assistance to student programming teams during laboratory.

Skills

Skills I have obtained over the years relevant to the project but not limited to:

- **React:** I have experience using React/React routing on a calendar web application. I am comfortable using it alongside Material UI.
- **Git/GitHub:** I have used the versioning platform Git/GitHub with all previous group projects and am comfortable with the tools it provides.
- **SQL:** I have taken a database systems class that required building and manipulating SQL databases.
- **Python:** I have taken two classes in the Python language and have used it to manipulate SQL databases.
- **Linux:** I have used Linux extensively for a computing tools class, an operating systems class, and for a networks class.
- **C/C++:** I have taken multiple classes that utilize C/C++ and am comfortable building large projects using both languages. I have been a teaching assistant for class in C for two semesters.
- **HTML/CSS:** I have experience in HTML/CSS through a web programming class.

Other Interests

Outside of class, I also attend meetings as a member of Women Who Compute here at NAU. I have recently been elected club Secretary for next semester, and. Through Women Who Compute, I have had the opportunity to help out with and plan our 2023 Robothon, as well as attend events in our community to talk about computer science.

In my free time, I enjoy quilting and running. I also enjoy spending time outdoors, hiking and backpacking. I try to take every opportunity I can to explore Flagstaff and the other surrounding areas.

Name: **Nicholas Wiley**
Major: **Computer Science**
Hometown: **Laguna Niguel, California**



Education

Aliso Niguel High School – GPA: 3.7

Cal Poly San Luis Obispo – Bachelor's in BioResource and Agricultural Engineering:
Highlighted Courses: Data Structures, Object-Oriented Programming, Systems Programming

Northern Arizona University – Bachelor's in Computer Science:
Highlighted Courses: CS 480 (ongoing), CS 470 (ongoing), CS 460

Work Experience

Researcher - Cal Poly San Luis Obispo:

I worked on a research team tasked with creating an autonomous robot designed to search and remove the invasive Yellow Star-Thistle. I worked with Convolutional Neural Networks, specifically YOLO, to identify Yellow Star-Thistle. On top of this, I created a camera from scratch using a Raspberry Pi and a 3-D printer to gather training data in the field.

Skills

Skills I have obtained over the years relevant to the project but not limited to:

- **Flutter:** Currently working on a scheduling app for IOS utilizing Flutter that keeps track of events and plans out spare time for things such as homework.
- **Node.js:** Utilized Node.js alongside Express.js to create the backend system for my CS 386 group project Time Sculptor.
- **React:** Learned React alongside Node.js for the Time Sculptor project.
- **MySQL:** Backend database for Time Sculptor used MySQL to store user data. It was accessed through a REST API.
- **Linux:** Have been using Linux for years across many different systems to automate tasks and solve problems.
- **C/C++:** I have created multiple projects in C and taken a couple classes focused on its use. Currently taking CS 396 which goes over C++ in depth.
- **Java:** Was the first programming language I learned and was also the language used in my Object-Oriented Programming class.
- **Python:** Used Python alongside OpenCV for computer vision tasks.

Other Interests

I am a very curious person and love to learn about new things regardless of topic. Since I am naturally inclined towards technology, I spend a good deal of time researching ways to solve problems using computers, whether through software or hardware. When I am not learning I like to explore and find new things.