

BIRAJ SILWAL

✉ birajsilwal.ai@gmail.com | ☎ 563-271-8079 | github.com/birajsilwal | [linkedin.com/in/birajsilwal](https://www.linkedin.com/in/birajsilwal) | [birajsilwal.com](https://www.birajsilwal.com)

Experience

App Developer, School of Engineering, UNM

📅 Apr 2020 - Present

- Develop a full stack web app that makes it easier for students to stay informed about support services and events serving **1,400+** engineering students with **9,500+** page views within 14 months.
- Technologies: **React, MongoDB, Strapi, JSON Web Token (JWT), AWS.**
- Use agile methodologies to continuously plan, design, and program the UI/UX resulting in enhanced user satisfaction ratings from **60% to 95%.**
- Create questionnaires and conduct user interviews to identify and analyze current user experiences and pain points.

Research Intern, Purdue University

📅 Jun 2021 - July 2021

- Implemented a higher level of autonomy in an AI teammate to understand the relationships between trust, workload, transparency, and autonomy.
- Carried out the research process with **4** team members in a condensed, **7-week** research experience and deployed an updated web based simulation on Amazon Mechanical Turk on a **3-week** timeline – I went from identifying a problem to experiment design/deployment and reporting results.
- Created Python script to process raw survey data for statistical analysis.

Fullstack Developer, Kizmet.cc (Startup)

📅 Feb 2021 - Aug 2021

- Developed a web application in **VueJS, Python, MongoDB, and NodeJS.**
- Led, designed, and developed front-end by creating flexible, extensible, and loosely coupled components and implemented **Flux architecture** for global state management with reactive components using Vuex.
- Created **Python** script to populate **1+ million** demo users to simulate real-world performance.

Virtual Insight Series, Goldman Sachs

📅 June 2020 - July 2020

- Received training in professional development, introduced to networking best practices, interview best practices, and exposure to the intersection of finance and technology.

Projects

Chili House, NASA MINDS project Co-President

📅 Nov 2020 - Present

- Co-lead a team of **11** interdisciplinary team members with a goal to develop innovative techniques for growing crops in space.
- Wrote **Python** script to simulate microneedle moisture sensors in the plant that publishes impedance values and temperature values to the Swarmie robots.

Leadership

- **Teamlead**, Food Recovery App, Lead a team of **5** to build an Android/iOS app (React Native) to reduce food insecurity on-campus. Currently, UNM has **~6,000** food insecure students, Sept 2021 - Present
- **Secretary**, National Society of Black Engineers (NSBE), University of New Mexico chapter, Jul 2020 - Present

Education

B.S. in Computer Science Minor in Economics

University of New Mexico (UNM)

GPA: 3.5 / 4.0

Graduation: May 2022

Advanced Software Engineering CodePath.org

Coursework

Algorithms • Data Structures • Object Oriented Programming • Software Design • Operating System • Machine Learning • Computer & Network Security • Linear Algebra • Set Theory & Probability

Technical Skills

Programming

Strong: Java • Python • JavaScript
Familiar: C/C++ • Bash • JSON • SQL • XML

Frameworks/Libraries

React • Vue • NextJs • NuxtJs • React Native

Tools

Git • AWS (EC2, Amplify, S3, Route 53, and Redis) • MongoDB • Web Application • Debian Linux • Jupyter

Other skills

Cloud Computing • Scrum • Teamwork & Collaboration • UI/UX • Web Technologies • Frontend • Backend • Object Oriented Design

Honors & Awards

- **1st** place out of 35 teams in NASA MINDS competition for Overall Design, Build, and Demonstration, 2020-2021
- **Finalist** for the 2019-20 UNM Mobile App Contest out of 22 teams, 2020
- **Finalist** at FIRST Robotics Competition Central Illinois Regional – one of the 63 regional competitions around the USA, 2018