Kelby Kramer

Email: kramerkelby@gmail.com | **LinkedIn** | **Phone #:** 307-871-0539 | **GitHub**

WORK EXPERIENCE

Meta – WhatsApp Infrastructure, Menlo Park, CA — *Software Engineering Intern*
MAY 2022 – AUGUST 2022

Message Delivery and Storage Team (https://github.com/WhatsApp/waraft)

- Designed optimal implementation solutions using RAFT strong consistency consensus algorithm across a distributed storage system that scales to 3 billion active users for WhatsApp messages (100 billion/day).
- Added witness replica functionality to existing RAFT implementation using Erlang/OTP. Upon launch reduced network throughput by 95%, CPU usage by 90%, and memory usage by 85%. Project implementation has functionality across Meta's entire family of messaging apps (WhatsApp, Messenger, Instagram) equating to 4.5 billion combined users across the three platforms.
- Gave a company-wide Tech Talk that presented project and key metrics to senior leadership. Coordinated with engineering team to handle edge cases to allow for seamless project integration to production across 3 continents.

Hall of Fame Bets – Remote — *Full Stack Software Engineer*
NOVEMBER 2022 - PRESENT

React and Python Developer (HoFBets.com)

- Designed and implemented the UI/UX for a custom parlay optimizer and deep stats analysis tool that allows for seamless display of data. Implementation allows for users to easily understand the odds of different parlays and outcomes for sporting events across the NBA and NFL.
- Developed a fully custom responsive table library across the entire platform (Leaderboard, Deep Stats, and Parlay Optimizer) that implements complete flexibility when viewing different statistical categories at custom user defined thresholds.

Art of Velocity – Remote — *Game Development Software Engineer*
AUGUST 2022 – NOVEMBER 2022

Lead Game Developer (ArtOfVelocity.com)

- Led implementation and deployment of a cross-platform mobile app's fully custom and responsive game library. Each game consisted of unique gameplay mechanics, graphics, and animations that were implemented using NodeJS, Vue, TypeScript, and React Native.
- Collaborated, wrote, and edited specifications to produce games that target training reaction time, spatial awareness, memory, and other cognitive functions for competitive athletes. Ensured quality and consistent UI/UX throughout the entire app and across games. App tracks user progress and performance over time along with a ranking and leaderboard system.

Minnesota Elevator Inc., Mankato, MN — *Software Engineering Intern*
NOVEMBER 2020 – AUGUST 2021

- Designed, implemented, and oversaw the infrastructure and testing harness for a fully custom, real-time elevator monitoring system using a full web stack (LAMP) along with a REST API.
- Migrated 3 MS Access databases containing customer order, billing, and system specification information from the past 35 years into a single SQL database. Implemented an easy-to-use and highly flexible search functionality front end using a LAMP stack.
- Developed controller board testing software in C# used across 4 elevator systems that provides a pleasing UI with a backend that reads data in using RS-485 serial communication protocol for boards to be verified and tested before moving into production.

SELECTED PROJECTS

Reaction Lights- GitHub
OCTOBER 2022 – PRESENT

Designed and developed firmware in C++ for a real time reaction lights simulator used by professional athletes. Used ESP32 microcontroller and web server to allow for IoT communication and allow for users to select from one of 8 desired game modes, view their personal bests and stats, and view a global leaderboard of different users that use the product. Storing of user data occurs in a MySQL database with a JavaScript frontend and PHP backend.

Smart Semi-Autonomous Duck Decoy - GitHub
MAY 2022 – DECEMBER 2022

Developed and launched firmware in C++ using an ESP32 microcontroller along with JavaScript/HTML/CSS for a client-facing web application that allows for fully customizable remote control of a duck decoy's path. Designed and implemented navigation algorithm and real time tracking system, along with using the ESP32 as an access point to communicate with the duck decoy. Won 1st place at the Minnesota State-Mankato ECET Senior Design competition.

Kato Rewards - GitHub
JANUARY 2022 – MAY 2022

Launched a full stack website for a promo and rewards system for college students. Developed a business plan, coordinated with local business owners, and pitched idea to investors. Migrated application to a mobile app using Flutter SDK and Dart.

Automated Cat Litterbox – Website
AUGUST 2021 – MAY 2022

Developed, implemented, and launched firmware with Arduino Mega 2560 board for a fully automated cat litterbox. Ensured pleasing UI/UX when interacting with touch screen of product. Wrote a design doc, researched, and selected hardware components for the project. Placed 2nd at Minnesota State-Mankato ECET Junior Design competition.

AWARDS

Meta Legendary Presenter, 1st place ECET Senior Design Competition, 2nd place ECET Junior Design Competition

SKILLS

Languages: JavaScript, Python, C++, C#, PHP, SQL, Erlang, HTML/CSS
Frameworks/Tools: Django, NodeJS, React, Vue, jQuery, Git, Firebase, Figma

EDUCATION

Minnesota State University – Bachelor of Science, Computer Engineering, Magna Cum Laude, May 2023