

# Normandy Rivver

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<https://github.com/normandyr>

## EDUCATION

### **Bachelor of Science**

Computer Science - Software Development

Missouri State University

#### **Minors:**

Mathematics

General Business

Information Technology

Business Application Development

### **Graduate Certificate**

Experimental Psychology - Statistics & Research Design

Missouri State University

### **Bachelor of Science**

Psychology & Sociology

Missouri State University

#### **Minors:**

Communication

## WORK EXPERIENCE

- Computer Science Department – January 15, 2020 – June 1, 2020
  - Undergraduate Researcher – Reinforcement Learning development for Fighting Game AI Competition (FTFAIC)
- FedEx – June 1, 2020 – August 14, 2020 (*postponed till 1/21 from COVID-19*)
  - Intern – Software development building a GUI for clients to fight package fraud
- Sociology Department - February 21, 2014 – September 10, 2015
  - Undergraduate Researcher – Data analysis, data entry, data write-up for department research project

## PROJECTS

- **Python**
  - Performed data mining classification evaluation on several classification techniques with a skewed data set. Classification methods examined include: SVM, KNN, Naïve Bayes, and Logistic Regression through use of scikit learn Python framework. The dataset used was skewed and imbalanced and evaluated without any sampling techniques and with sampling techniques designed to reduce the effects of skew. Sampling techniques used include both up-sampling and down-sampling.
    - <https://drive.google.com/file/d/1EK4kLk7ohPFzxWwscdIV85Xq9QGHAE5F/view?usp=sharing> (PPT)
    - [https://drive.google.com/file/d/1ijxyWnMChR0aGTajajGIA\\_zvNFHS14EA/view?usp=sharing](https://drive.google.com/file/d/1ijxyWnMChR0aGTajajGIA_zvNFHS14EA/view?usp=sharing) (Paper)
- **Java (Android)**
  - A movie quiz app using Java for an Android device was programming which allowed users to see times of specific movies, take a picture while at the movies, and to complete a quiz game on a list of movies. Both XML and Java were used.
    - <https://youtu.be/tep5qwyazcA> (App Demo Video)
  - Fighting Game AI Competition (FTFAIC) program developed in Java using DeepLearning4j emphasizing Reinforcement Learning and principles from the Bellman equation. Agent was rewarded for staying within a state bubble which was a distance specified from the opponent.

- **JavaScript, HTML, CSS, Node.JS**
  - A transformable wheel robot game was developed using JavaScript and the matter.js framework. The robot was able to extend and retract its limbs and could grow and shrink in size. An indicator bar was available to the user to see how much limbs were extended or retracted from initial point along with an indicator bar to show users how much the current robot had grown or shrunk in comparison to initial size. The user could control the robot with various keyboard input which allowed them to move forward and backward, scale the robot up or down, and extend or retract the robot's limbs. Scalable Vector Graphics (Svgs) were used as an input terrain. The goal was to transform the robot when necessary to make it through the terrain.
    - <https://github.com/normandyr/csc596> (scroll to the bottom and read directions for controls and click the link to play the MVP)
  - Semester long project built with a team member utilizing HTML attributes and tags, CSS rules, and the utilization of an API (our program used the FBI crime statistics API) which allowed a user to interact with and receive specific information to a request. Our program allowed a user to search for various crime statistics in their state, or any state, in the United States based on year. This information was shared to the user through our website and we provided an option for the user to share the information to their own Twitter account through Twitter token authorization.
    - <https://fbi-crime-api.herokuapp.com/about> (please note some of the functionality is broken due to the move to Heroku but the major functionality is still operational)
- **Kotlin**
  - Semester long project which re-envisioned the greeting card as a social media app. Utilized OOP. SQLite Database. Process image QR code and/or scan image QR code with camera with both options taking the user to a specified video. Hologram greeting card. Allowed email to support built into app. Allows users to connect their Facebook profile to our app and login with it.
    - <https://normandyr.github.io/?fbclid=IwAR1W3IzcbeqrINhZzXIUPUZr7iRwBKThhNVsP1d7fAaZEgb9YAQIKGHHgE> (Product Showcase)
    - <https://youtu.be/nQUi-LjD04U> (App Demo Video)
- **React, JavaScript, PHP, MYSQL**
  - Mini project which required a full-stack development of game. Simple survival game where the goal is to move forward for as long as possible. Utilized React to create html elements. JavaScript for keyboard input and entering your score. PHP for CRUD backend. MYSQL for database storage which showed the top 10 scores.

## QUANTITATIVE RESEARCH

- Rivver, N. *The Influence of Scent and a Verbal Label on Immediate and Delayed Recall*. Poster presented at the annual CHHS Symposium. Plaster Student Union, Springfield, MO
  - <https://drive.google.com/file/d/1ATkolrev8vFMMS-8nQC1oLDyMljn6CWm/view?usp=sharing> (PPT)
  - <https://drive.google.com/file/d/16TeZncIfLPmlvLi7ZA1yglKUS81TFGMu/view?usp=sharing> (Abstract)
- Rivver, N. *Youth Homelessness: Connecting the Dots between Contributing Factors and Prevention Programs*. Paper presented at the annual Mid-west Sociological Association. Marriot Hotel, Kansas City, MO
  - [https://drive.google.com/file/d/1vq\\_oSX2IB5WSkSV4txdCX0ID\\_wVPufF7/view?usp=sharing](https://drive.google.com/file/d/1vq_oSX2IB5WSkSV4txdCX0ID_wVPufF7/view?usp=sharing) (PPT)
  - <https://drive.google.com/file/d/1Si1FW41ci-2o5YJB0zPaglmd0EFwdzzL/view?usp=sharing> (Paper)

- Rivver, N. *Springfield Homeless Point in Time Count*. Paper presented at the annual Missouri Sociological Association. The Lodge of Four Seasons, Ozark, MO

#### **MIXED METHODS (QUALITATIVE/QUANTITATIVE) RESEARCH**

- Rivver, N. *Mixed Methods Examination of Age Differences in Perceptions of Cellphone Usage as Tool Versus Partner. How Users Relate to Technology Consumption and Interaction*.
  - <https://drive.google.com/file/d/1HPDS3hrdj6XF5QarA9uS5doBiaZpFGI5/view?usp=sharing> (Paper)
- Rivver, N. *Applying the Disclosure Decision Making Model to Communication about Contraception*. Paper presented at the annual Central States Communication Association. Hyatt Regency, St. Paul/Minneapolis, MN
  - <https://drive.google.com/file/d/1HKelN52AVDdRKraRsK8Ic09w6m3RN-vx/view?usp=sharing> (PPT)
  - <https://drive.google.com/file/d/1hkhKyZ-jO-aYf2bCSbtG3fkqKUtGdXLO/view?usp=sharing> (Paper)