KRISCHIN LAYON

KRISCHINLAYON@GMAIL.COM

EXPERIENCE

DATA ANALYST, CL (DECEMBER 2018 - PRESENT)

- Increased consumer engagement by 5% and decreased business expenses by 10% through Data-Driven Decision Making.
- Created reliable metrics in **R** and **Python** to assess streaming and sales performance.
- Optimized CTRs by running **A/B tests** on website layouts. A/B treatments were identified via **heatmap analysis**.
- Inspected and interpreted trends in multidimensional datasets with **linear regression analysis**.
- Prepared dynamic and static spreadsheets in **Excel**. Includes work with **Pivot Tables** and **Formulas** (SUMIFS, VLOOKUP, etc)
- Measured social media campaign effectiveness through **time-series analysis**.
- Presented business data with **seaborn** or **matplotlib** in Python.

RESEARCH ASSISTANT, UCR COLLEGE OF NATURAL & AGRICULTURAL SCIENCES (JANUARY 2020 - PRESENT)

- Associate Professor, James Flegal (Dept. of Statistics)
  - Organized the development of porting the R Package, MCMCSE, to Python. Computes MCMC Standard Errors.
- Assistant Professor, Heyrim Cho (Dept. of Mathematics)
  - Analyzed the prediction error of bayesian parameter estimations of multiparameter, mathematical models for cancer tumor volume subject to radiotherapy treatment. Distributions generated via **Markov chain Monte Carlo simulation.**

EDUCATION

BACHELOR OF SCIENCE IN COMPUTER SCIENCE WITH BUSINESS APPLICATIONS (EXPECTED: DECEMBER 2021)
UNIVERSITY OF CALIFORNIA, RIVERSIDE. MARLAN AND ROSEMARY BOURNS COLLEGE OF ENGINEERING.

RELEVANT COURSEWORK:

- SOFTWARE ENGINEERING - Requirements & Specifications, System Design & Implementation, Debugging, Environments.
- SOFTWARE CONSTRUCTION - Design patterns, Agile software development, Linux/Unix, GIT Source Control.
- DATA STRUCTURES AND ALGORITHMS - Asymptotic Runtime, Sorting Algorithms, Data Structures (Lists, Stacks, Queues, Heaps, Trees, Hashing, Graphs)
- PROJECT PLANNING & CONTROL - Production Systems, WBS, Sequencing, Budgeting, Resource Management, Project Evaluation

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PROJECTS

NETWOR-KING

- **Full-Stack Web application** / service designed as a tool for business-networking analysis.
- Provides users with both a graph-based approach to professional-network visualization as well as performance analytics for network expansion and network health. This is presented through **WebGL** via **PixiJS**.
- Back-end is powered by **Flask (Python)**. Front-end is powered by **Angular (TypeScript)**. Design conceived in **Photoshop**
- Node data (vertices, edges, contact information, etc) works with a **REST API** using Flask and is stored in a **Relational Database.**

MCMCSE (PYTHON PORT)

- Python port of MCMCSE, an R package designed to calculate Markov Chain Monte Carlo Standard Errors.

RSHELL

- Unix shell written in C++

LANGUAGES:
- **STRONG:** PYTHON, R, C++, JAVA, MATLAB
- **MEDIUM:** HTML, CSS, TYPESCRIPT, JAVASCRIPT
- **LIGHT:** SQL (POSTGRESQL, SQLITE), C#, BASH, POWERSHELL

TECHNOLOGIES:
- ANGULAR, FLASK, THREEJS, BOOTSTRAP, NODE.JS, PHOTOSHOP, BLENDER, UNITY ENGINE, EXCEL, R STUDIO, PIXIJS

HARD SKILLS:
- COMPUTATIONAL THINKING, SOFTWARE DESIGN PATTERNS, STATISTICAL/DATA ANALYSIS, NUMERICAL METHODS & ANALYSIS, SIMULATION DESIGN, MACHINE LEARNING ALGORITHMS, DATA MINING

SOFT SKILLS:
- INTERPERSONAL COMMUNICATION, CREATIVE PROBLEM SOLVING, QUICK LEARNING, TIME MANAGEMENT, PROJECT MANAGEMENT