Jacques Sarraffe

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Education

09/2018 – exepected 2022
Rohnert Park, CA

Computer Science | B.S.
Sonoma State University

GPA: 3.9

Relevant Coursework: Data Structures, Algorithm Analysis, Database Management, and System Design, Software Design and Development, Data Science, Computer Architecture, Theory Of Computation, Operating Systems, Programming Languages

Work experience

08/2021 – present
Rohnert Park,
United States

Sonoma State University Learning and Academic Resource Center (LARC)

Programming 1 and 2 Lab Tutor
• Attended programming course lectures + labs and hosted tutoring hours to supply supplemental instruction for students during the semester.
• Increased professional communication skills + solidified Python and C++ fundamentals.

Grader for CS 315 Data Structures and Algorithms
• Graded complex programming projects.
• Increased C++ readability and algorithm analysis.

01/2021 – 05/2021
NEW YORK, NY

Mobile App Developer Intern
PSYFI

• Ported Android app to IOS using Flutter.

Sonoma State Research Scholarship

Machine Learning to Predict Student Performance in Introductory Programming

- I'm participating in a data mining competition hosted by the Educational Data Mining in Computer Science Education (CSEDM) Workshop. The competition start date is February 7, 2022, and the end date is May 1, 2022. The goal is to use students' code submissions on programming assignments to predict their performance on subsequent coursework in the same semester. As such, my team and I will develop an entire machine learning pipeline based on the provided data set, including data extraction and cleaning, feature engineering, model selection, tuning, and iterative testing/evaluation.

User Behavior Prediction in the Context of IoT Mobility forensics

- I explored the under-researched field of IoT mobility forensics, using smartphone and smartwatch sensor data. I used the extrasensory dataset provided by UCSD and other literature, to model IoT attack scenarios. The paper focuses on using the multi-layer perceptron model and examines the idea that with transfer learning, we can combine different IoT devices data to infer the context of a user. Further research can examine the detrimental and beneficial impact of these models from a forensics perspective.

Skills

Python, C++, C, Pandas, Numpy, Matplotlib, Sci-Py, MySql, Git, JavaScript, Latex, Swift, Racket

Projects

• **HDD Simulator** – Simulator used to analyze differently priority queues and scheduling algorithms used in modern HDDs for different volumes of data and produce.
relevant statistical data regarding 5 different disks running in parallel using C++.
• **iOS Chat App named BonkLink** – App allowed users to send text messages, photo/video messages, and current location, in an eye-catchy UI. I Assisted in each step of the process using Swift, MongoDB with Realms Sink.

Activities and Leadership

Alpha Sigma Phi Fraternity:
Treasurer (2020-2021)
- Responsible for overseeing chapter financial records and projecting future investments and plans

Scholarship Director (2019-2020)
- Led chapter to highest ever Chapter GPA at 3.43
- Created study plans for individuals
- Coordinated Study Groups, and tutored members

Basketball
- Played 4 years of high school basketball

Skateboarding, Snowboarding, Fitness