Rohan Kalra

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Education

University of Southern California — Los Angeles, CA
4.0/4.0 GPA, Presidential Scholar — *August 2020–Present*
Bachelor of Science in Computer Science and Business Administration
Data Structures/Object Oriented Design, Software Development, Algorithms/Computing Theory

Thomas Jefferson High School for Science and Technology — Alexandria, VA
4.42/4.00 GPA, 1580/1600 SAT, Student Government Association — *August 2016–June 2020*
Artificial Intelligence, Computer Vision, Multivariable Calculus, Linear Algebra

Projects

SawBuck | *React Native, ExpoCLI* | *LavaLab* — August 2021 – December 2021
- Led the development of a mobile app that allows fans to invest in their favorite hip-hop artists using social tokens
- Styled the front-end of the project which featured 6 navigable pages
- Conducted 23 user interviews to learn about the users' primary pain points
- Presented market research and demos of the application to a crowd of 200 people at LavaLab's demo night

The Exterminator | *React.js, Node.js, Firebase* — November 2021
- Created a web application with full CRUD functionality and a real time database to help developers track bugs
- Implemented login authentication with Auth0, front-end with React.js, and back-end infrastructure with FireBase
- Designed two primary views for the user, one is to view their existing issue tickets and one is to create a new issue ticket

Research

Computational Intern, Computational Cognitive Neuroscience Lab | *Harvard* — July 2019 – April 2020
- Researched theories regarding how learning agents make decisions probabilistically in states of uncertainty
- Presented code at weekly lab meetings to share progress with lab members in an agile development environment
- Developed probabilistic Q-Learning models to explore idea of Belief State-based decision-making
- Applied Computational Models to real-world data from cognitive studies being ran on mice
- Found evidence mice were making decisions probabilistically in behavioral paradigms when faced with uncertainty

Computational Intern, Princeton Social Neuroscience Lab | *Princeton* — June 2019 – July 2019
- Led a study to learn how "psychological distance" from a recipient affects an individual's donation behavior
- Calculated psychological distance metric based on measurable values such as difference in geophysical location, education level, income bracket, etc. (2,000,000 data points)
- Discovered "psychologically closer" donors and recipients yield higher *likelihood* of donation interaction, with no significant effect on *amount* donated

Activities

USC LavaLab | *Director of Recruitment, Executive Board* — December 2021 – Present
- Serve on the Executive Board of the University of Southern California's premiere, student-run, product incubator
- Develop the primary talent acquisition strategy to admit a cohort of 28 visionary designers, developers, and project managers every semester
- Mentor a team of four students and help guide them through launching a product/project from scratch

Juni Learning | *CS Instructor* — August 2021 – Present
- Teach students aged 9-16 in a variety of classes such as Introduction to Python and USACO Bronze training
- Work with the goal of not necessarily inspiring a passion for Computer Science, but inspiring a passion for learning and exploring in general

Skills and Accolades

Languages: C++, Java, JavaScript, Python
Tools and Software: Visual Studio Code, Eclipse, React.js, React Native, HTML/CSS, LaTeX
Awards: Toshiba/NSTA ExploraVision: Placed in top 5th percentile for proposing a system to target neurodegeneration with miRNA exosomes using quantum genetic algorithms, HackTJ: Best Mobile Application