Ahmed Baqai

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Education

University of California, Berkeley	**West Valley College**
Expected Graduation: 2022, College of Letters and Science, CS	**(Concurrent Enrollment)**
Courses: Structure and Interpretation of Computer Programs, Data Structures, Discrete Mathematics and Probability Theory, Designing Information Devices and Systems, Principles and Techniques of Data Science, Great Ideas in Computer Architecture, Efficient Algorithms and Intractable Problems	**(2018-2019)** Multivariable Calculus Discrete Mathematics

Skills: Java, Python, C, EDA, Git, SQL, HTML, JS, TS, React-Redux, Scheme, RISC-V, CAD, Product Design
Tools: S3, DynamoDB, Docker, Pandas, Jupyter Notebook, numpy, Github, SolidWorks, Figma, Seaborn

Technical Experience

SWE, Conversion Rate Optimization Intern | HelloFresh (US) | *June 2020 - August 2020*
• Enhanced Frontend Infrastructure to improve HelloFresh conversion experience for US-based customers through A/B testing. My work increased customer checkouts per visit by a net total of 2%.
• Orchestrated and Developed Phase 1 of the Community Discount Microservice aimed to provide frontline workers lower subscription rates. My database structure achieves quick email validation and reduces fraud risks.

Software Engineer Contractor | Sea Warden | *August 2020 - Current*
• Constructed the backend architecture for the customer data dashboard, enabling farmers in SouthEast Asia to receive, share, and trade data for intensive crop monitoring, increasing their production efficiency by 12%.
• Converted NoSQL data to sequential format (Pandas), allowing farmers to download past data as CSV.

Software Developer & Product Designer | Berkeley Codeology | *September 2019 - Current*
• Employed HTML and Flask to formulate "Whatcha Wanna Do", a user-friendly website that searches through Eventbrite's database to create an action-packed and exciting schedule for the user.
• Deployed matching algorithm, allowing *The Music Connection* (Organization) to readily match students and tutors. Automatic accounting for variables like timing, instrument, level, etc. ultimately saved 4 hours/weak.
• Built website through React, Redux, AdobeXD, and Git for consistent rendering, and user-friendly flow.

Video Analysis and Product Automation Intern | Altia Systems (PanaCast) | *July 2016 - August 2016*
• Spearheaded through the Engineering Design Process to map and CAD (SolidWorks) an automated machine to test the configuration of several P2S camera lenses, Altia's main product.
• My designs expedited the manufacturing process for the automation machine, ultimately increasing production time by 40% and reducing production costs by 2.5%. Conducted multiple tests with facial recognition software (Python) to analyze the effects of inhibiting variables such as facial coverage, distance, and lighting.
• Assembled feedback report which drastically improved Altia's current facial recognition capabilities by 6%.

Projects and Leading Roles

EECS Tutor & Academic Intern | Data Structures • Interpretation of Computer Programs | *2020-Current*
• Assist new CS majors in areas of Object-Oriented Programming, Tail Recursion, Data Structures (Arrays, Trees, Linked-Lists, Dictionaries). Collaborate with head TA's to establish productive labs and discussions.

Data Science Consultant | McBride Sisters | *2020-Current*
• Conduct Exploratory Data Analysis and apply ML techniques on Customer-Product relationships to further develop mappings between specific SKUs and user demographics. Company delegated marketing resources according to my findings, increasing sales by approximately 7% and counting.

Berkeley Computer Science Mentor | Structure & Interpretation of Computer Programs | *2020-Current*
• Instruct a CS review section for students at UC Berkeley. Ensure students create new knowledge from old concepts through critical thinking and challenging problems, ultimately creating an atmosphere of collaboration.

Robot Director and Technical Lead | The Tech Museum | *2015-2018*
• Operated and revamped Buster(robot) by improving its battery life, dynamics, and network connectivity which maximized museum attendance and influenced children to follow the STEM pathway.
• Engaged teenagers in STEM through concepts of Artificial Intelligence and Autonomous Robotics.

Awards
• Statistics Department Gold Award
• UCLA Jhoomti Sham First Place (Dance)
• First Tech Challenge Control Award
• First Robotics Challenge Spirit Award
• AP Scholar with Distinction
• DELF A1 and A2 (French Diploma)

Organizations and Activities
• Big Data @ Berkeley
• Computer Science Mentors @ Berkeley
• Cal Pakistani Student Association
• Cal Muslim Student Association
• UC Berkeley Azaad (Bollywood Fusion Dance)

Languages: English, Urdu, Hindi, French, Punjabi