Sebastián Buxman

3355 The Alameda • Santa Clara, CA • sebastianbuxman.com • sbuxman@scu.edu • (385) 444-5456

EDUCATION

SANTA CLARA UNIVERSITY, School of Engineering – *Santa Clara, CA* **January 2024 - Expected June 2025**

- Candidate for Master of Science in Computer Science and Engineering.
- Relevant Coursework: Cloud Computing, Algorithms, Internet of Things, Design Systems, Operating Systems, AI, Data Mining
- Student Athlete, WCC Conference All-Tournament team, NIT National Tournament participant.
- Research Paper: Can machine learning techniques be employed to predict SCU volleyball athletes' match day performance?

WEBER STATE UNIVERSITY, School of Computing – *Ogden, UT* **January 2020 - December 2023**

- Bachelor of Science in Computer Science.
- Relevant Coursework: Formal Languages and Algorithms, ML, Software Engineering I & II, Client Web Development.
- Louis F. Moench Academic Scholarship for International Students, Student-Athlete, First and Second Team All-Conference.

EXPERIENCE

LESIMULATTE (Startup), Software Developer and Co-Founder – *Cape Town, South Africa* **December 2023 - Present**

- Established LeSimulatte as a web development venture in South Africa that reliably delivers bespoke digital solutions.
- Increased revenue for 5 small businesses (restaurants/cafes) by developing new online websites to facilitate customer reservations.
- Introduced business owners to managing their online presence by educating them on tools such as Squarespace.
- Applied SEO strategies and optimized website performance, boosting online traffic for client businesses by an average of 30%.
- Leveraged knowledge in Git, Full Stack Web Development, Svelte, Javascript, HTML, Google Analytics and Search Console.

WEBER STATE FINANCIAL SERVICES IT (FSIT), Lead Software Developer – *Ogden, UT* **April - December 2023**

- Ensured uninterrupted functionality of the "Domain Audit" app by resolving 15 bugs and developing 4 C#/MySQL applications.
- Increased FSIT's operational efficiency by building a surplus pickup request portal used by 2,500 faculty/staff members.
- Streamlined inventory management for 400 users by converting from manual tracking to a centralized online system.
- Leveraged knowledge in C#, MySQL, debugging using Chrome development tool, SQL query optimization.

WEBER STATE UNIVERSITY, Student Lab Support – *Ogden, UT* **March 2022 - April 2023**

- Assisted over 1,000 students with technical issues, improving lab efficiency and user satisfaction by providing prompt solutions.
- Ensured efficient lab operations, by overseeing opening/closing procedures, and managing computer check-in/out.
- Leveraged knowledge in troubleshooting, technical support, and lab management to maintain smooth operations.

PROJECTS

COSTCO DESIGN PATTERN IMPLEMENTATION – *Santa Clara, CA* **August 2024 - September 2024**

- Engineered a comprehensive system by implementing 18 design patterns across multiple operational domains.
- Developed solutions for Customer Support and Stock systems, optimizing workflows and enhancing maintainability.
- Integrated patterns like Proxy and Mediator to manage department communication and automate text-based order placement.
- Utilized**:** Java, Design Patterns (Proxy, Mediator, Interpreter, Factory, Facade, Singleton), Git, UML.

SERVERLESS COMPUTING – *Santa Clara, CA* **May - 2024**

- Authored an in-depth research paper on serverless computing, analyzing its impact on scalability and cost efficiency.
- Explored the implications of serverless computing by designing a dynamic pricing system that updates item prices in real time.
- Implemented lambda functions with triggers using AWS services that save operational costs by more than 8 times.
- Utilized: AWS Lambda, API Gateway, DynamoDB, Kinesis, EC2, Cloudshell, Amazon EventBridge, Cloudwatch.

IOT SMART FRIDGE – *Santa Clara, CA* **January - March 2024**

- Developed an IoT smart fridge system that identified items using image recognition by implementing a machine learning model.
- Predicted expiry dates by leveraging time-based tracking and real-time sensor data, improving food waste management efficiency.
- Built a Swift app interface, reducing input by providing automatic food identification and expiry notifications via IoT integration.
- Utilized: Open source image classification models, OpenAI API, Raspberry PI 4, Swift, EC2, Flask, Python, Twilio.

ANALYZING PROFESSIONAL TENNIS USING MACHINE LEARNING – *Ogden, UT* **August - December 2023**

- Developed a research paper on the importance of specific attributes in winning tennis matches, using machine learning algorithms.
- Conducted a broad study to evaluate the significance of various player attributes, providing insights into performance factors.
- Leveraged advanced machine learning techniques to identify key indicators, highlighting player success determinants.
- Utilized: TensorFlow, Scikit-learn, Matplotlib, Seaborn, Pandas, Python.

LEADERSHIP & COMMUNITY

SANTA CLARA / WEBER STATE UNIVERSITY MEN'S TENNIS, Team Captain – *UT, CA* **January - May 2024**

- Achieved the highest national ranking in the last 10 years as a valuable member of the Santa Clara men's tennis team.
- Chosen as a member of the Student Athlete Advisory Committee to bring student athletes' concerns to light and drive change.
- Selected amongst best 6 players in the Big Sky Conference twice and ended career top 20 all time in singles wins at WSU.