

# Mark Sianipar

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## SUMMARY

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As a software developer, I specialize in delivering full-stack solutions that combine intuitive design, business process expertise, and high performance. Drawing from my STEM background, I approach challenges with logical and programmatic thinking. My research and technical experience help me empathize with customer needs, plan for costs and scalability, and adapt to evolving markets and technologies. Having worked at both start-ups and at a fortune 500 laboratory, I've learned the value of clear communication, the power of collaboration, and the joy of mentorship.

## SKILLS

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**Back End Development**| Express, Node.js, Python, PostgreSQL, NoSQL, MongoDB

**Front End Development**| ReactJS, Javascript, BootStrap, HTML, CSS Miscellaneous

**Technical**| TypeScript, Prompt Engineering

**Biochemistry**| ELISA, TLC, Protein/Lipid Prep and Extraction, Data Analysis, Nanodrop, Gel Electrophoresis

**Health Care**| Specimen Handling, Quality Control, Instrument Maintenance, Data Entry, GCP

**Microbiology**| Endotoxin Testing, Sterility, Growth Promotion, Environmental monitoring, Air/Surface Sampling

**Soft Skills**| Clear & Well-Spoken Communicator, Team-Player, Mentorship

## Software Development Highlights

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**Roster Radar** | Choose from an entire pool of NBA players and create your own team! | Typescript, React.js, Node/Express.js, Bootstrap, swagger API, PostgreSQL, JWT

- <https://roster-x1pq.onrender.com/login> (Render needs ~60s to boot)

**First React Portfolio** | My very first portfolio utilizing React| React.js, JavaScript, Bootstrap,

- <https://aboutmarksian.netlify.app/>

## PROFESSIONAL EXPERIENCE

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### Software Developer

Denver Coding Bootcamp (Student)

August 2024–Present, US, Colorado, Denver

- Grade: A
- Technologies: HTML, CSS, Javascript, Web & REST APIs, Git/GitHub, Node.js, TypeScript, SQL, prompt engineering, React, NoSQL, MERN, CI/CD, Python, Express.js.
- Portfolio: <https://aboutmarksian.netlify.app/>
- GitHub: <https://github.com/MarkSian>

### Lab Technician (Contract)

AOA DX

February 2024–August 2024, US, Colorado, Denver

- Executed validation protocols for the immunoassay platform and sample preparation.
- Regular sample preparation for downstream testing for ELISA, TLC, and Mass Spec.
- Exosome Isolation: DynaBeads Exosome Isolation Kit, Size Exclusion Chromatography (SEC), and Smart SEC.
- Executed ELISA, NanoDrop, Dot Blot, Western Blot, TLC, and BCA Protein Assay.
- Successfully completed AOA DX's first Mass Cohort test that served as a stress test and solidified critical concepts related to our testing process.
- Develop SOPs to standardize operation on aspects of Sample Prep and ELISA.
- Plan and Execute experiments, analyze data, and present data.
- Regularly handle Biosafety Level 2 (BSL-2) samples.
- Prepare reagents and order/receive lab material

### Hematology Lab Technician (Non-MLT Certified)

Laboratory Corporation of America (Labcorp)

May 2021 - June 2023, US, Colorado, Englewood

- Lead a team of 3 for CBC testing and Coagulation testing in the Hematology Department.
- Implemented new practices to further improve sample turnaround time by 20% and cut down on processing errors by 10%.
- Execute testing for CBCs, Coagulation (aPTT, PT, INR, and D-Dimers), Erythrocyte Sedimentation Rate, and Hemepath reviews.
- Identified non-conforming material and completed CAPA investigations.
- Responsible for training 10 new hires and many interns on laboratory SOPs.
- Execute validation experiments for clinical laboratory hardware
- Support Quality protocols for regulatory compliance with CAP, CLIA, and state clinical accreditation.
- Identified non-conforming material and completed CAPA investigations.

## **Microbiology Technician** **Infinity Laboratories**

July 2020 – April 2021, US, Colorado, Castle Rock

- Interfaced with contracted laboratories to execute Environmental Monitoring (EMs). Conduct proper gowning, aseptic techniques, and quantifiable analysis of microbial grow post-incubation.
- Nurture customer relationships to ensure satisfaction, positive testimonials, and generate continuous business.
- Aseptically applied client samples with USP-compliant organisms to induce quantifiable growth under a Biohazard Hood, ensuring data integrity and reliability, vital for quality control and product development.
- Accurately communicated results and generated daily reports detailing findings for clientele.
- Develop and assist in the validation of new laboratory operating procedures, method improvements, and test plans.
- Media Preparation: Produced and sterilized various media (THIO, TSB, Fluid A, Fluid D, Fluid K, TSA) using a Consolidated Autoclave.
- Sterilize lab utensils/equipment and laboratory dishwashing.
- Performed Limulus Amebocyte Lysate (LAL) testing to detect endotoxins with high accuracy and reliability, ensuring product safety.

## **EDUCATION**

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**Certificate: Full-Stack Coding Bootcamp**  
Denver University • 2024

**Bachelor of Science in Biochemistry**  
Colorado State University • 2019

## **PERSONAL ACCOMPLISHMENTS**

### **Infinity Laboratories and LabCorp**

Employment experience in the clinical, pharmaceutical/manufacturing, and startup setting. At Infinity Laboratories and LabCorp I applied as a Lab Tech but was offered the Lab Assistant position instead. At the time, with my lack of experience, that decision made sense. Within a 3–6-month period, I would be promoted to the Tech position. Working in different sectors of the industry, you noticed that there are many different make-ups of how a team is constructed. The difference between a cohesive and successful team and a dysfunctional and toxic team is willingness and confidence. From lab aide to the team lead, if everyone is confident in their work and willing to do what is required, then that team will earn more wins.

### **AOA DX**

Be apart of a start-up and taking part in growing it. From moving equipment into the lab, sorting lab supplies, and prepping the lab space for use. Contribute to method development, assay development, and the team's proof of concept. Active pursuit means to reduce the sample preparation process. Complete AOA DX's first mass cohort testing on human samples to measure our testing capacity and finalize conclusions on the selected biomarkers. Validated the procedure for pre-coating ELISA plates for streamline use.

### **Environmental Monitoring Technician**

Perform environmental monitoring for contracted medical manufacturing laboratories across Colorado. Act as the tech and the representative of the Infinity Laboratories to nurture relationships with customers and accurately perform the task to their design. Headquartered at Castle Rock, trips can range to Colorado Springs, Boulder, Denver, Westminster, and Evergreen. Never have been late to an appointment. Willingly repeat the collection process when the customer gave the wrong clean room map. Finish in a timely manner without disturbing the employees. Under the tepid request of my Lab Manager, I willingly traveled to Boulder and completed the job despite missing lunch and finishing the shift late. As a result, the customer relationship with Infinity improve and we earned a reliable customer.

### **PC Building Enthusiast**

I have built 5 different PCs in the past 10 years. I have continued to replace the parts needed for my personal computer and parts for friends. Continuous attention to what chip manufacturers produces to stay on top of the best products in the PC space. I have taken PCs with proprietary parts and worked around it to install upgraded pieces.