

Sebastian Chalarca

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EDUCATION

St. John's University

Master of Science in Computer Science

New York City, NY

September 2019 - May 2024

WORK EXPERIENCE

Full Stack Web Developer

St. John's University

June 2023 - Present

New York City, NY

- Identified a gap in standardized teaching environments, which often fail to address diverse learning styles.
- Led a team to develop an AI-powered tutoring app that personalizes learning through human feedback for students.
- Participated in an NSF-ICorps entrepreneurship course to gain insights on commercial viability of the startup project.
- Conducted 60+ interviews with professors to assess commercial viability, securing \$50,000 in NSF grant funding.

Full Stack Web Developer

St. John's University

January 2023 - May 2024

New York City, NY

- Analyzed 20+ research papers on knowledge graphs to design and implement a recommendation system in React.js.
- Created a Neo4j knowledge graph database, improving medical ontology retrieval visibility in search engines by 20%.
- Participated in the FLAIRS-37 conference to present our insights on knowledge graphs to academic leaders.
- Achieved 95% precision, 82% accessibility, and a 100% increase in retrieval speed following user testing.

PROJECTS

AI Tutor | *HTML, CSS, JavaScript, React.js, Python, MySQL, AWS*

June 2023 - Present

- Leveraged Bootstrap to quickly build modern UI components for the website, reducing development time by 35%.
- Set up session management in the Python backend and created the login interface, providing a secure login system.
- Deployed demo on the internet using AWS S3, EC2 and RDS to host the web app to collect user feedback.
- Containerized the project with Docker, ensuring a safe and standardized development environment for my teammates.

Semantically | *HTML, CSS, JavaScript, React.js, PHP, Neo4j*

January 2023 - May 2024

- Restructured PHP backend to connect with Neo4j, optimizing database queries by storing machine readable data.
- Implemented an intuitive D3.js interface for interactive visualizations, clarifying recommendation results for medical experts and improved medical document annotation speed by 20%.
- Enhanced system based on feedback from up to 20 participants, achieving 85% positive feedback on usability.

Billiards Order Tracking System | *HTML, CSS, JavaScript, React.js, NeDB*

August 2024 - October 2024

- Developed an offline desktop application using JavaScript, Electron.js, and NeDB to track pool table usage and sales, enhancing operational efficiency by 25%.
- Designed a user-friendly interface and implemented a receipt tracking feature, boosting business profits by 10%.
- Added an order history section with debt status, simplifying the process of settling unpaid invoices with customers.

SKILLS

Frontend languages: HTML, CSS, JavaScript

Backend languages: Java, Python, PHP, MySQL, NoSQL

Frameworks: React.js, Bootstrap, TailwindCSS, Electron.js

Tools/Services: Node.js, Git, Vercel, Docker, Vite, Google Cloud Platform, AWS, RESTful APIs, Figma, Postman

Soft skills: Bilingual (Spanish), Detail-oriented, Problem-solving, Collaboration, Adaptability, Coordination