MAYA JAIRAM
SOFTWARE ENGINEER

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EDUCATION

B.S.E. Computer Science | Princeton University ***September 2020 - May 2024***

Certificate in Computational Biology, Awards: Reiner G. Stoll Research Fellow, LEDA Scholar, SIFP Scholar, Hofstra MSPP Scholar
Coursework: Introduction to Programming Systems, Data Structures and Algorithms, Machine Learning, Human Computer Interaction, Information Security, Full stack development, Algorithms in Computational Biology, Immunology, Organic Chemistry

SKILLS

Programming Languages: C, C++, Java, Python, Golang, HTML, CSS, Javascript, SQL
Technologies: AWS, MongoDB, React.js, Express.js, Node.js, Flask, REST APIs, Django, Linux, PostgreSQL, Auth0, Figma, Stripe, Git, Bootstrap, Chrome extension development, Selenium, DevOps, Agile SDLC, CI/CD pipeline, Retool, Trello
Soft Skills: Fast learning, Strong communication, Detail-Oriented, Strong Initiative, Adaptable, Problem solving, Laboratory skills

EXPERIENCE

Software Engineer | BILI ***December 2024 – Present***

- Develops employee task automation and ensures agents are properly communicating real-time task progess.
- Adds front end features and customizes user interface with drag and drop blocks to show the multi-agent automated workflow.
- Creates presentation decks for new technological features to present to stakeholders to demonstrate product improvement.

Data & Technology Officer | BAM.Money, Inc ***May 2024 - September 2024***

- Maintains relevant LSTM machine learning model and the MERN technology stack. Created a brand-new user interface, introducing new features using React for seamless viewing of model data and used REST APIs for client communication.
- Conducts daily meetings with stakeholders to convert business strategies into technological solutions using continuous integration and deployment, monitored Retool and AWS and handled disaster recovery.
- Independently implemented a new MacOS desktop application from start to finish in Electron, resulting in an increase in efficiency and a 15% cost reduction for the company. Used Stripe API to handle consumer purchases and subscriptions.

Teaching Assistant | Princeton University ***February 2023 - May 2024***

- Delivered tutoring in Algorithms and Programming Systems, adapting teaching methods to suit 100+ students' learning styles and proficiency levels. Designed and delivered interactive course content, improving engagement for students.
- Boosted students' code debugging efficiency by 50% through systematic guidance and hands-on problem-solving sessions.
- Enhanced mentorship capabilities, contributing to a 20% increase in student academic performance through collaborative learning and peer engagement.

Research Intern | Fiocruz ***June 2023 - August 2023***

- Conducted comprehensive ecological studies using Python, analyzing over 10,000+ clinical data points to explore socioeconomic impacts on healthcare accessibility.
- Experimentally compared prognostic tests for Hansen's disease, improving efficacy by 30%.
- Presented research findings at a major science conference, enhancing awareness of Hansen's disease among 100+ attendees.

PROJECTS

NJ Food Systems Resource Directory ***September 2023 - December 2023***

- Engineered a responsive web application utilizing Python and Flask for server-side logic.
- Integrated HTML, CSS, and JavaScript for the frontend, with PostgreSQL, SQLAlchemy, and Elephant SQL.
- Developed advanced search and filtering capabilities using JavaScript, Python, and Flask. Built a CMS for managing resource submissions and approvals. Integrated Auth0 for robust authentication.

Detecting Biomarkers in Ovarian Cancer ***February 2023 - May 2023***

- Applied Random Forest multi-class classification in Python to analyze over 5,000 genomic data samples, successfully categorizing ovarian cancer tumor subtypes with 90% accuracy.
- Conducted comprehensive genomic research, identifying 50+ significant genes linked to ovarian cancer, aiding in the development of targeted therapies.
- Utilized advanced statistical methods on extensive genomic datasets, resulting in a 25% improvement in model optimization and data reliability for predicting clinical outcomes in ovarian cancer research.

Augmenting Inline Search with Rephrasing on LLM Citation Generation ***February 2024 - May 2024***

- Researched and implemented improvements in LLM citation generation, focusing on rephrasing techniques to enhance citation accuracy, fluency, and relevance using OpenAI's ChatGPT-3.5 and the ALCE benchmark.
- Developed and tested experimental modifications to the Inline Search method, improving LLM output by integrating rephrasing steps and prioritizing up-to-date sources for more accurate citations.
- Conducted qualitative and manual evaluations of LLM outputs across datasets, analyzing fluency, precision, and recall identifying key areas for future research in improving LLM citation mechanisms.