Tony Lin

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EDUCATION & HONORS

Stony Brook University, Stony Brook, NY   **Fall 2020 - Spring 2024**
Computer Science, Bachelors of Science   **GPA:** 3.5

SKILLS

Languages: Python, Java, C, Bash, JavaScript, HTML, CSS, and MIPs
Databases and Frameworks: ReactJS, MongoDB, SQL Server, Firebase, Django, and Flask
Tools: Git, Vercel, GCP, AWS, Axios, Linux, Figma, Express, Node, Jupyter Notebook, D3, and Autodesk AutoCAD

PROFESSIONAL

Deloitte, *Software Engineer*   **July 2024 - Present**
- ❖ Implemented REST APIs in Java to support critical backend features such as report uploads, Excel file parsing, automated email workflows, and optimized SQL query execution within SQL Server
- ❖ Coordinated discussions with cloud administrators and creating a scheduler to turn AWS EC2 instances off for 200+ unused hours annually, reducing the annual cost of an AWS account by ~50k.
- ❖ Currently extending the cost optimization initiative to 12 additional AWS accounts
- ❖ Designed a library of frequently used React components for 8 Large Language Model web app with Tailwind and Headless UI

Allied Microbiota, *Bioinformatics Engineer*   **Jun 2023 - Jun 2024**
- ❖ Migrated 2 TB of bacterial genome data to Google Cloud Storage for training a gene classification machine learning model with an accuracy level of 89%
- ❖ Wrote bash and python scripts using pandas to filter and identify bacteria with the riboswitch capable of decomposing cancerous chemicals into fluoride using a sequence alignment tool named CMalign

Deloitte, *Software Engineer Intern*   **Jun 2023 - Aug 2023**
- ❖ Wrote python scripts for tagging and cleansing 500+ skill data from classified competency catalogs and position descriptions to improve an NLP model's accuracy to distinguish knowledge, soft skills, and hard skills by 35%
- ❖ Supported JSON file ingestion for training custom models within a LLM accelerator. Internal teams can use the model tuning features within the accelerator to expedite deployment of their project-specific LLMs by 3-6 months

RESEARCH

CICaidA, *Team Leader*   **Jun 2021 - Jan 2023**
- ❖ Onboarded 5 frontend developers, transitioned the mobile app to web app, and integrated the FitBit API as the new database for the web app platform targeted for over 61 nursing homes
- ❖ Developed an Android/iOS application continuously receiving updated heart rate and oxygen saturation information from patients for central display, which entered the finals in 2021 EMedic Global Clinical Technology Competition in Hong Kong
- ❖ Demoed CICaidA's central monitoring capabilities to 3 CEO judges at WolfieTank and won $5k project funding

Roflex, *Frontend Developer*   **Feb 2021 - Dec 2021**
- ❖ Optimized state management with React hooks for a wrist wearable web app and setup real time data syncing from Firebase to track physical therapy progress

PERSONAL

OrcaCoin JS Blockchain | *JavaScript, gRPC, Kad-DHT*   **Feb 2023 - May 2023**
- ❖ Developed a custom peer to peer network able to connect to over 600 remote peer nodes simultaneously
- ❖ Implemented a custom lightning chunking algorithm for sending files, established an express server for hosting files, automated public private key creation, and designed the API routes for a prototype blockchain system

Dynamic Memory Allocator | *C*   **Oct 2023 - Nov 2023**
- ❖ Devised a custom memory allocator for the x86-64 architecture from scratch without standard C library functions (malloc, free, and realloc)
- ❖ Leveraged doubly linked lists for efficient tracking of allocated and free memory blocks and incorporated coalescing and block splitting strategies to reduce fragmentation
- ❖ Designed over 50 comprehensive unit tests to ensure robustness and no memory leaks

Q&A Web Application | *React, Express, Node, MongoDB*   **Feb 2023 - May 2023**
- ❖ Engineered a responsive web application supporting user authentication, 6 view pages, and 23 HTTP methods for REST APIs between the Node backend and the MongoDB database