

Swebert Correa

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EDUCATION

- **Georgia Institute of Technology** Atlanta, Georgia
Master of Science in Computer Science; GPA: 4.0/4.0 Aug 2024 - May 2026
Coursework: Distributed Computing, Database Implementation, Computer Networks, Machine Learning
Specializing in Computing Systems; Graduate Teaching Assistant for NLP
- **College of Engineering, Pune (COEP)** Pune, India
Bachelor of Technology in Computer Engineering; GPA: 9.05/10.0 Aug 2018 - Oct 2022
Coursework: Operating Systems, Distributed Systems, Computer Networks, Database Systems, Compilers

SKILLS

- **Languages:** Javascript, Python, Go, Java, C, C++, Bash (Linux Shell Scripting), SQL
- **Technologies:** Kubernetes, Docker, MySQL, PostgreSQL, MongoDB, AWS, Azure, GCP, NextJS, React, Svelte, Django, Fast API, Nginx, Electron, Material UI, Bootstrap, Tailwind, Numpy, Git, Jira, Jenkins

EXPERIENCE

- **Rakuten Symphony** Pune, India
Associate Software Engineer | C/C++, Python, Kubernetes, PostgreSQL Jun 2022 - Jul 2024
 - Engineered an in-house object storage system delivering ~ 70% feature parity with AWS S3
 - **HTTP Streaming Server:** Developed an asynchronous event-based streaming HTTP server in C to provide object store REST APIs like GetObject, PutObject, etc. while handling MIME and URL encoding
 - **Dynamic Certificate Management:** Created a mechanism to periodically generate TLS certificates and injected them into Kubernetes secrets pulled by gateways and updated custom certificate authority server
 - **Server-Side Encryption:** Engineered the mechanism to encrypt objects at rest using the customer-provided key, without disrupting active-active replication of the erasure-coded objects across heterogeneous sites
 - **Cluster Manager:** Collaborated with team lead to implement RPC-based orchestrator featuring a custom event loop enabling microservice lifecycle management such as data servers, metadata servers and gateways
 - **Microservice Diagnostic Utility:** Collated data from various microservices to determine the in-flight IO operations on all distributed volume managers of the cloud native block storage via pub/sub model
- **Citi Bank** Pune, India
Technical Summer Analyst May 2021 - Jul 2021
 - **DevOps:** Created CI/CD pipeline using PowerShell to email results to all stakeholders with single click
 - **Optimization:** Leveraged various wait strategies in Selenium for 5x runtime reduction from 30min to 6min

PROJECTS

- **Computer Society of India** | React, MongoDB, TypeScript, Docker, Nginx | [Link](#)
 - Led a team of 6 students to build a new full-stack platform using the MERN stack, Material UI and Nginx
 - Deployed the platform on college servers with Docker and managed application processes using PM2
- **Music GenAI Synthpad** | JavaScript, Svelte, Python, FastAPI, Amazon EC2 | [Link](#)
 - Created a GenAI using genetic algorithms to generate music on a FastAPI backend hosted on AWS EC2
 - Developed virtual synth pad as HCI interface to visualize and interact with the genomes as musical notes
- **BitTorrent Desktop Client** | Python, JavaScript, Electron, Flask
 - Implemented BitTorrent protocol in pure Python, including peer discovery with HTTP/UDP based tracker
 - Built a Flask backend to interface with an Electron desktop application, enabling file download initiation and real-time visualization of statistics for downloads, uploads, network activity, and connections