

## EDUCATION

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- **Rice University** Houston, TX  
*Master of Science in Computer Science* *Aug. 2021 – Dec. 2022*
- **Rice University** Houston, TX  
*BA in Computer Science, BS in Physics* *Aug. 2017 – May 2021*

## EXPERIENCE

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- **Koupon.ai, an LLM Coupon App** Bellevue, WA  
*Full-stack Engineer* *May 2022 - Present*
  - Developed reusable React components in **Typescript**, integrating backend REST APIs in **Next.js**.
  - Implemented user authentication using **Firebase**, including email/password login and social integrations.
  - Integrated **Algolia** search with the vector database Weaviate, leveraging **LLM** to enhance product recommendations and optimize user interactions.
- **Filegpt, an LLM-based App** Bellevue, WA  
*Tech Lead* *March 2022 - Present*
  - Led the development of FileGPT, an **LLM**-based App for interacting with contents from multiple formats.
  - Integrated database (**Postgres**) pooling, load balancers, and message queues (**Redis**) to ensure high scalability, availability, and smooth operation during peak usage.
  - Monitored multiple servers, dockers, and databases for any problems and supported more than **5000 registered users** and **hundreds** of paying customers.
- **Meta** Menlo Park, CA  
*Backend (Product) Software Engineer Intern* *May 2022 - Aug. 2022*
  - Worked on internal large-scale indexing service on data critical to Meta Apps like facebook, instagram, etc.
  - Optimized indexing efficiency by skipping in-memory data ingestion and data compaction in **RocksDB**
  - Developed user-friendly configurations and CLI for spark map-reduce using **C++** and **thrift**
  - Monitored data consistency and indexing performance, and migrated the change to over 14000 use cases
  - Reduced the **disk I/O by 60%** time, saving tens of hours per run and **millions of dollars** in server fee per year
- **CertiK** New York, NY  
*Full-stack Software Engineer Intern* *Sept. 2021– Dec. 2021*
  - Maintained company website in **Next.js** and ran unit tests and integration tests in **Cypress** with mocks
  - Made the website to production with the ability to audit crypto transactions

## SELECTED PROJECTS

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- **Database System** *Jan. 2022 – Apr. 2022*
  - Developed a MySQL-like database system with LRU cache management, page/record handle, TPMMS sorting algorithm, SQL compiler and query optimization
  - The database leverages B+ tree optimization and enables parallel read/write operations with basic SQL queries
- **Network Protocols** *Jan. 2021 – Apr. 2021*
  - Developed a TCP-like reliable file transfer with sliding-window, congestion control and connection management
  - Developed and deployed intra-domain routing protocols for optimal data delivery across servers
- **Linux-based Operating System** *Jan. 2021 – Apr. 2021*
  - Built a Linux-based operating system with kernel, file system, and terminals
  - Supported the kernel to run multiple processes concurrently with separate user stacks
  - Developed a file system with a server-client model and message-passing (MPI) to communicate with the kernel
  - Managed various edge cases (multiple threading, claiming large amount of memory, etc.)

## TECHNICAL SKILLS

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**Languages:** C/C++, Python, Javascript, Node.js, HTML/CSS, React, Next.js, Verilog, Java, SQL  
**Technologies:** AWS, Google Cloud, Azure, Linux, Nginx, TCP/IP, Kubernetes, Heroku, Cypress, Kafka, Redis, Postgres, MongoDB, Django, Git, CMake, NPM, CUDA