Matthieu Tran

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EDUCATION

California State University, Fullerton | *Computer Science, B.S.*
DEC 2017 - MAY 2021 (EXPECTED) | CUMULATIVE GPA: 3.32

TECHNICAL EXPERIENCE

Siemens Digital Industries Software | *Web Developer Intern*
APRIL 2019 - PRESENT | CYPRESS, CA
- Formulated a DOCX to HTML tool by implementing a recursive breadth-first searching algorithm (BFS) to parse a Word document's XML tree data, displaying over 8,600 documents online.
- Accelerated the estimated Project Freedom Support Center GO-LIVE by one month through centralizing the differing articles for export.
- Standardized the documentation view for the various products in the company's diverse portfolio by making a prototype web application.
- Automated the staging and production cache purging requests by utilizing the Akamai Fast Purge API and increased rate of closed requests by 120%.

CSUF Intelligent Learning Experience Lab | *Lead Research Assistant*
MARCH 2019 - PRESENT | FULLERTON, CA
- Applied the Microservices Architecture to the core grading system to breakdown the monolithic application for organization while streamlining application scalability to match increasing team growth.
- Addressed the issue of inter-microservice communication by implementing gRPC and Protocol Buffers (Protobuf) for consistent contracts and flexibility.
- Ported the Learning Tools Interoperability (LTI) Library from PHP to the Go Programming Language.

PROJECTS

Speller (Go) **|** *Spell Checker*
- Produced a real-world implementation of the hash table data structure, checking an input's spelling with a file-based database provided by Harvard's online CS-50 course.

https://github.com/MatthieuTran/cs50-go/tree/master/speller

Myer's Diff (C) **|** *File Difference Checker*
- Recreated the diff command on Linux systems that displays the line-by-line differences between two files.
- Applied the Myers diff algorithm by abstracting each line of text as a node in a graph to eventually find the shortest edit path for difference calculation.

https://github.com/MatthieuTran/myers-diff

mungjar's Portfolio (PHP, Python) **|** *Creative Portfolio Website*
- Collaborated with artist "mungjar" to design and publish a "artist-first," creative portfolio website by creating a central system for managing commissions and adding artwork to display in a gallery.
- Leveraged the Discord API to enable single-sign-on (SSO) by working with the OAuth2 system, providing the artist and his clients a private channel for support.
- Optimized website loading speeds by 20% by caching content on a Redis. database.

https://github.com/MatthieuTran/mungjar | https://mungjar.art/

LINKS

https://matthieu.codes/
https://github.com/MatthieuTran
https://linkedin.com/matthieutran

SKILLS

Languages:
Go/Golang, Python, C, C++,
Javascript (Node.js, React),
PHP (Laravel), HTML, CSS (SCSS)

Technologies:
SQL (MySQL, PostgreSQL),
NoSQL (MongoDB, Redis),
GraphQL, Prisma

RELEVANT COURSES

Algorithms
Data Structures
C Programming
Discrete Mathematics
Object Oriented Programming
Operating Systems
Calculus II