Matias Tejeda Astaburuaga

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EDUCATION

Purdue University

Aug 2019 – May 2024

Bachelor of Science in Computer Science (GPA: 3.46/4)

West Lafayette, IN

Relevant Coursework: Python Programming, Object-Oriented Programming, Discrete Mathematics, C Programming, Computer Architecture, Data Structures and Algorithms, Systems Programming, Computers, Computer Security, Operating Systems, Computer Networks, Embedded Systems, Advanced Memory Allocation

EXPERIENCE

KLog.co Sept 2024 – Present

Full Stack Engineer

Santiago, Chile

- Designed and implemented a user-friendly interface to track data changes, featuring advanced search capabilities by field names and date ranges
- Leveraged Zapier APIs to connect HubSpot quotes to the platform, enabling seamless attachment of quote documents in .PDF format to the database
- Updated the design system with custom React components with tailored CSS styling, adhering to UI/UX Figma requirements and improving UI consistency
- Developed an algorithm to parse dense HTML data such as tables into plain text equivalents, facilitating accurate and efficient processing by AI

SKILLS

- Programming: HTML/CSS, JavaScript/TypeScript, Python, Java, C/C++, ARM/x86 Assembly
- Frameworks: React, NextJS, NodeJS, ExpressJS
- Databases: PostgreSQL, MongoDB, GraphQL, Prisma
- \bullet $\,$ Tools: Git, Linux, AWS, Docker, VSCode, Scrum, DBeaver, Postman, HubSpot
- Languages: Spanish, English, Japanese

PROJECTS

Social Media Website | HTML/CSS, NodeJS, MongoDB, AWS

- Developed a full-stack web application to implement a social media service where users can create posts or comments, add friends, and modify their profiles
- Implemented a REST API for the frontend that allows CRUD operations on the user database
- Configured an AWS EC2 server for application deployment using Nginx for HTTP reverse proxy and PM2 for load balancing

Fan Controller | Python, Kotlin, XML

- Designed and built an embedded system that reads inputs from a digital thermometer and controls a fan's speed accordingly using Pulse Width Modulation for real world dynamic cooling capabilities
- Developed an Android application in Kotlin and XML to implement IoT functionality and wireless access to the fan controller using TCP/IP socket communication

Packet Analyzer $\mid C$

- Developed a packet analyzer for the Linux operating system that intercepts raw packets from the Network Interface Card and displays relevant information in real time
- Coverage includes each layer of the TCP/IP model such as Ethernet headers, ARP and IPv4 headers, and TCP, UDP, and ICMP headers

Custom UNIX Shell | C++, Lex, Yacc

- Developed an UNIX shell that implements a terminal command line which parses and executes user input
- Input can include commands and their arguments, pipes for passing the output of one command as the input for the next, and I/O redirection for files
- Bonus features include handling environment variables, nesting a child shell within a parent shell, and expanding wildcards using regular expressions and recursion