Devin Arena

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WORK EXPERIENCE

Mastercard 2023-

Software Engineer - Java

O'Fallon, Missouri

- Developed financial applications utilizing microservice architectures to process transactions efficiently
- Updated automated regression suites using JUnit to improve test speed for different microservices and end-to-end testing
- Wrote DDL/DML scripts to manipulate Oracle databases and created verification scripts to validate changes
- Created Dashboards using Splunk queries to aggregate data from thousands of transactions for verification
- Lead a team with other graduates to assist a local company in migrating an educational system to Salesforce

SRC, Inc. 2022

Software Engineer Intern

Syracuse, New York

- Upgraded the root filesystem on microcontrollers to transition from Python 2 to Python 3
- Created a makefile scraper to compile dependency and version information for Buildroot configurations
- Tested and documented the new Linux root filesystem and software package on microcontrollers

Florida Gulf Coast University

2020-2023

Research Assistant - Physics

Fort Myers, Florida

- Automated running MadGraph and MadAnalysis simulation software on Ubuntu using Python
- Analyzed output data for statistical significance and compared it to publicly available detector databases
- Presented 3 posters on the collision detection of dark matter

TECHNOLOGIES AND LANGUAGES

Java, Javascript/TypeScript, Python, C++, C, Rust, HTML, CSS, .NET Languages:

Git, SQL, MongoDB, NodeJS, ReactJS, REST APIs, Embedded, Linux, Windows Technologies:

EDUCATION

Florida Gulf Coast University

Fort Myers, Florida

Bachelor of Science in Software Engineering

GPA: 4.0

President's List

TGraph | C++, Make

PROJECTS

Positron | C, Make December 2022-Present

Developed a scanner, parser, compiler, and virtual machine for a dynamically typed interpreted language in C

YDKBot | Javascript, Node.js, Discord.js

May 2023

- Created a Discord bot to guery the YGOProDeck API and display card information in a formatted embed
- Implemented local caching to reduce repeated calls to the remote API and decrease response time

Built a terminal-based equation graphing application in C++

August 2022-September 2022

- Implemented a Pratt parser for parsing complex equations

RouxSolver | Node.js, Javascript, HTML, CSS, Three.js

October 2021/June 2022

- Created a speedcubing AI to track cube state, utilize algorithms, and compute near-optimal solutions
- Utilized Three.js to build an interactive speed cube in 3D space

Minesweeper AI | Javascript, HTML, CSS

December 2019/September 2021

Built an AI that utilizes a probability map for solving Minesweeper puzzles in vanilla JavaScript