Dylan Moon

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WORK EXPERIENCE

Autonomy Research Center for STEAHM (ARCS)

Oct. 2023 - Present

Proteus Project Associate

- Working with the <u>Proteus</u> team to develop a new programming language based on Hierarchical State Machines (HSMs) for use in NASA/JPL spacecraft
- Research topics: Lexers, Parsers, Abstract Syntax Trees, Typecheckers, Linters, Language Server Protocol (LSPs)

Wired Media Solutions

January 2021 - July 2024

Software Engineer

- I lead the design, development, deployment, and maintenance for Wired Media Solutions' Crestron Home product line
- Collaborated with the <u>Cake</u> team to develop the configuration API, database, and some of the operational boilerplate using C#, Entity Framework, ASP.NET, Docker, and PostgreSQL
- Worked with the <u>Colorbeam</u> engineers to streamline their API to better work with existing control systems and wrote the control system used to showcase Colorbeam Lighting at <u>Lightapalooza</u>
- Architected and deployed a service that allows <u>Loxone</u> control systems and <u>Crestron</u> control systems to coexist in the same space without having one being the 'master'
- Redesigned the product line to use common libraries for increased code reuse with self hosted NuGet packages for an average reduction in development time from concept to initial release of 40%
- Increased code coverage in tests to 90%+ for higher reliability and a significant reduction in client support tickets

Cornerstone Molds and Machining

February 2011 - August 2019

Machinist and CNC Programmer

• Wrote and deployed a custom post-processor in Javascript, which included custom canned operations to streamline CNC programming. Resulting in a 5% savings in operating time

EDUCATION

California State University Northridge

Bachelor of Science in Computer Science

• Graduated with Honors & Dean's List all semesters

Santa Barbara City College

Major in Computer Science

Jan. 2018 – June 2021 Cumulative GPA: 3.79/4.00

Aug. $2021 - June\ 2023$

Cumulative GPA: 3.93/4.00

Projects

dotNet Color Oct.

Oct. 2023 – Present

- Created a simple library to convert color interpretations (rgb, hsl, hsv) where no current NuGet projects existed
- It is an experiment with functional design patterns intended to generate a single function that can convert and scale color data in a pipeline
- It is currently being used in several Crestron Home lighting drivers

GitMunny Aug. 2022 – May 2023

- Cross platform budgeting app as part of a group project in senior design class. It provides an entry into budgeting apps with a simple Ui and intuitive data visualization
- Allows users to set a monthly budget and track expenses by adding and deleting transaction data
- I led the backend API development and database design, which can facilitate both the mobile app that was developed and a future web browser version

TECHNICAL SKILLS

Languages: C#, Java, Swift, Python, Lua, C/C++, SQL (Postgres), JavaScript, HTML/CSS

Frameworks: .NET, Mono, NUnit, XUnit, ASP.NET, Blazor, Entity Framework, JUnit

Developer Tools: Rider, GitKraken, IntelliJ, CLion, Eclipse, Git, Docker, VS Code, Jenkins, Selenium Misc: LINQ, pandas, NumPy, Seaborn, RegEx, TCP, UDP, Http, Websocket, MQTT, mDNS, REST APIs