

# SAM TAYLOR

703-969-6032 [sam.tlor1@gmail.com](mailto:sam.tlor1@gmail.com) <https://github.com/SamTlor/SamTlor> <https://www.linkedin.com/in/sam-tlor/>

## OBJECTIVE

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As a computer science graduate, I have a wealth of knowledge about essential techniques that I hope to bring to a dynamic team setting. Having honed my skills through work with NASA and a software engineering internship, I am proficient in object-oriented programming languages Java, Rust, and Python as well as front-end languages such as JavaScript. I am enthusiastic about exploring innovative solutions that can power and advance technology.

## EDUCATION

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**Virginia Commonwealth University** December 2023  
*Bachelor of Science in Computer Science* GPA: 3.5  
**Relevant Courses:** AI, Data Science, Software as a Service, Programming Languages, Linear Algebra, Calculus 3, Statistics, Networking, Database Theory, Operating Systems, Algorithm Analysis

## EXPERIENCE

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**Software Engineering Intern**, Web Traits, Inc., Gaithersburg, Maryland May 2023 - August 2023

- Used C# and Visual Basic to create email automation system integrated with OfficeSMTP server.
- Implemented Windows Scheduler to automate critical email dispatch to enhance team productivity.
- Designed system for automatic Excel file updates, reducing manual data entry and errors.
- Researched and identified optimal SMTP server solutions to enhance email reliability and speed.
- Integrated hardware with cloud server for automated backups, reducing data loss and downtime.

## SKILLS

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**Programming:** Python, Java, Rust, C, C++, C#, Visual Basic, SQL, JavaScript, PHP, HTML, CSS, Excel, Flask, Docker, Lisp, Jupyter Notebook, IDEs, GitHub

**Techniques:** Machine learning, linear regression, logistic regression, version control, API integration, cloud computing, data visualization, quality assurance, containerization, code review, technical documentation

## PROJECTS

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**Predicting Solar Wind Conditions at Psyche 16 with NASA** | Python, Machine Learning

- Led team in development of sophisticated program to predict solar wind conditions around asteroid Psyche 16, demonstrating strong leadership and project management skills.
- Applied advanced machine learning techniques to enhance prediction accuracy using data from multiple satellites.
- Conducted extensive research to identify relevant data sources.
- Spearheaded data acquisition and cleaning to ensure high-quality data for model training.

**Spotify Adder** | Raspberry Pi, Python, Flask

- Developed program for playlist management and secure access to Spotify resources.
- Implemented OAuth authentication using Flask and requests module.
- Enhanced playlist management, adding songs from smaller playlists to specific large playlist.
- Added alarm clock feature that plays random song from specific playlist.

- Automated using Raspberry Pi.

#### **BoxOfficeMaxTV+ | SQL, HTML, CSS, PHP**

- Designed and implemented comprehensive SQL database system that efficiently stored and managed data related to movies, actors, and their respective awards.
- Designed Entity Relationship Diagram.
- Crafted user-friendly front-end website that provided easy access to stored information, enhancing user experience and accessibility.
- Implemented secure login system with role-based access control, allowing administrators to modify database content while restricting normal users to read-only access, enhancing data security.

#### CLUBS

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Data Sci, Webrams, Game Creators Coalition, AI Club