David Solinsky

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PROFESSIONAL EXPERIENCE

Swift   **January 2025 – *Present***
Associate Developer/Systems Engineer   Manassas, VA

GEOST   **April 2023 – August 2024**
Software Engineer, Mission Systems   Reston, VA

Developed satellite payload test software for payload data packet classification to control payload peripherals and retrieve telemetry
- Developed payload test software in C to control satellite camera payload via user command data packets.
- Built custom data packet for telemetry to differentiate general telemetry from specific transmissions.

Developed a secure data processing system for payload classification, ensuring proper segregation and transmission of unclassified and classified data
- Set up Docker for database services and secure data transmission, streamlining service interactions.
- Developed FastAPI endpoints with Pydantic/SQLAlchemy for efficient, secure data processing.
- Implemented unit tests and agile practices for reliable code and project management.
- Wrote a logging service on a separate thread in C for unifying and optimizing messages.

Led the development of a web application integrating the AstroUXDS design library with CesiumJS, enabling interactive 3D visualization of space objects
- Integrated PostgreSQL for dynamic 3D visualization and interaction with space object data.
- Developed CRUD functions with SQLAlchemy and Pydantic for efficient UI and back end operations.
- Implemented UI features like filters, pagination, and toggles to enhance interaction in Typescript/CesiumJS.
- Built FastAPI-based APIs for real-time data exchange between front end and database.
- Collaborated with analysts and engineers nationwide to develop space-based software solutions.
- Created Dockerized PyTest integration tests to ensure accurate data transmission between payload and ground systems.
- Leveraged AWS Workspace and CLI for verifying data flow for telemetry data.
- All components were in dockerized microservices and executed in the AWS cloud system

Raytheon Technologies   **August 2022 – April 2023**
Software Engineer (Subcontracted by **ISYS Technologies**)   Silver Spring, MD

Maintained critical software for the Raytheon AWIPS contract with the National Weather Service (NWS), resolving weather forecast configuration issues affecting warnings.
- Collaborated in Scrum stand-ups and resolved debug tickets using Kanban boards via Remedy and Redmine.
- Investigated problems in Java, Python and XML files on RHEL/CentOS to remedy user configuration issues.
- Engaged clients at the NWS office to gather feedback on challenges to prioritize current needs of the team.

EDUCATION

College of William and Mary   **Williamsburg, VA**
Bachelor of Science in Computer Science   2022
Honors: Dean's List: *Fall 2020 - Spring 2021*

TECHNICAL SKILLS
- **Programming Languages:** C/C#/C++, Python, Java, HTML/CSS/JavaScript(ReactJS), Rust
- **Markup Languages**: LaTeX, JSON, CSV, XML
- **Databases**: SQL (MySQL, SQLite, PostgreSQL), MongoDB
- **DevOps:** Selenium, Jenkins/SonarQube, Docker/Podman, Docker/Podman Compose, Kubernetes
- **Tools**: Vim, VSCode, Visual Studio, Eclipse, Rider, Clion, Android Studio, Git/Github/Gitlab, Bitbucket/Jira/Confluence
- **Server Operating Systems**: Windows, MacOS, Linux (Ubuntu, Mint, Manjaro, CentOS, RHEL)