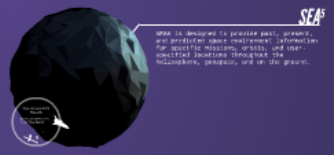
Internship at NASA

Tyler Schiewe



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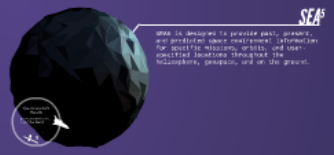
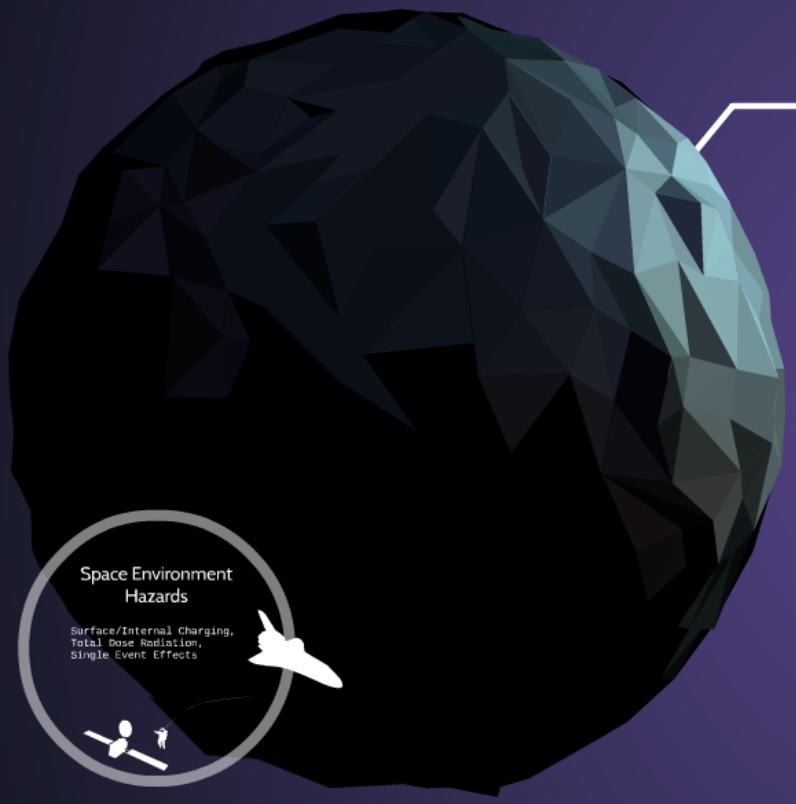


SEA5



SEA5 is designed to provide past, present, and predicted space environment information for specific missions, orbits, and user-specified locations throughout the heliosphere, geospace, and on the ground.

Space Environment Hazards

Surface/Internal Charging,
Total Dose Radiation,
Single Event Effects

Goals

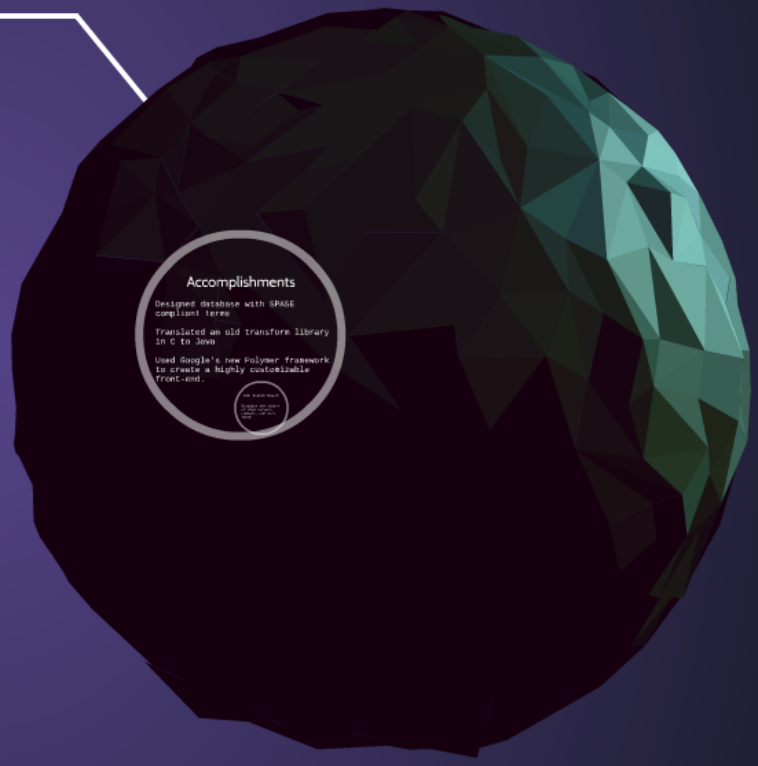
Design the system's database

Create some utilities to perform coordinate conversions and calculate hazard values

Design an easy-to-use user interface

Implement an end-to-end demo for 3 Geosynchronous satellites

BONUS: ISWA Health Report



Accomplishments

Designed database with SPASE compliant terms

Translated an old transform library in C to Java

Used Google's new Polymer framework to create a highly customizable front-end.

ISWA Health Report

Displays the status of ISWA servers, cygnets, and data feeds

ISWA Health Report

Displays the status of ISWA servers, cygnets, and data feeds

What I learned

- Java web app development
- Creating and using servlets
- Polymer Web Components
- Basic search engine design
- Importance of space weather

Where I'm Going

Google
Grad School
...?

MISSION ACCOMPLISHED

Thanks to NASA GSFC, Marlo Maddox, Richard Mullinix and everybody at CCMC

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