Curriculum Vitae

Benjamin Saalberg

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Location: Ann Arbor, Michigan, United States

Education

Kalamazoo College **Aug 2020 - Jun 2024**
Bachelor of Arts in Computer Science with Honors
Relevant Coursework: Machine Learning, Data Science, Cryptography, Advanced Software Development, Parallel Computing, Programming Languages, Computer Organization, Algorithms, Data Structures, Discrete Math, Object-Oriented Programming, Python Programming, Intro to Computers.

Work Experience

Maxar Technologies, Ypsilanti, MI **Jun 2023 - Present**
Software Engineer *Full-time, Hybrid*

- Developing algorithms in MATLAB, Python, C++, and Java to work at the pixel level to form image products to find and improve detection of objects.
- Building a full-stack satellite image viewing application (SIEVE) and parallelizing it for improved performance.
- Updating legacy Java code for the maintenance of systems.
- Working with TS/SCI Clearance on multiple projects, contributing to the successful creation of SAR image products.

Maxar Technologies, Ypsilanti, MI **Mar 2023 - Jun 2023**
Software Engineering Intern *Internship, Hybrid*

- Developed web application to display SAR imagery using a window tiling generative algorithm to improve data loading efficiency.
- Improved software by fixing bugs, automating test scripts, optimizing memory and speed, and developing tools for output analysis, benchmarking, and quality measurement.

Foundations, Ann Arbor, MI **Jun 2022 - Sep 2022**
Software Analyst Intern *Internship*

- Created company-standard documentation for data acquisition and interpreting industry-specific Key Developmental Indicators (KDIs).
- Conducted research on KDI input systems, determining their pros and cons for future use by the company.

Teaching Experience

Kalamazoo College, Kalamazoo, MI **Aug 2023 - Jun 2024**
Computer Science Teaching Assistant and Tutor *Part-time, On-site*

- Assisted in classroom instruction and grading for multiple Computer Science courses.
- Coordinated grading efforts of other Teaching Assistants and helped construct the curriculum for advanced CS courses.

Research Experience

Engineering and Parallelizing Synthetic Aperture Radar (SAR) Image Environment Viewing Engine (SIEVE)   **Nov 2023**
Honors Distinction
- Engineered application for viewing and analyzing satellite images and parallelized multiple server loading systems for large-scale SAR images within a desktop application.
- Project was advised by Dr. Sandino Vargas Perez, Department of Computer Science, Kalamazoo College.

Skills

Programming Languages: Java, Python, C++, JavaScript
Web Development: React, Vue, HTML, CSS
Tools: Git, Linux