

Kaleb Burris

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Software Engineer and Sophomore at The University of Alaska Fairbanks studying Computer Science and Mathematics. Specializing in systems engineering, artificial intelligence, and recreational mathematics.

EDUCATION

University of Alaska Fairbanks

B.S. in Science. Majoring in Computer Science. Minor in Mathematics.

Fairbanks, AK

2020 – Present

Matanuska Career and Technical High School

Building Pathway. Pursuing Computer Science.

Wasilla, AK

2016 – 2020

EXPERIENCE

Alaska Satellite Facility

Student Intern

The University of Alaska Fairbanks, Fairbanks, AK

September 2022 – Present

Worked on the NASA/ESA DAAC contract related to the Sentinel-1 mission.

Sentinel-1 Superseded

REST API for end-user access to superseded data. Written in Rust and deployed on AWS.

- AWS: Lambda, DynamoDB, Secrets Manager, IAM, S3, API Gateway, DNS
- Rust: Actix Web, Rocket, Serde

Personal Projects

Multiplicative Persistence – Recreational mathematics: data science.

Arbitrary Precision – Arbitrarily large integers: memory and time optimizations.

Machine Learning Java – Machine Learning: neural networks, stochastic descent, deep learning.

Gossip Glommers – Distributed Systems: serialization/deserialization, network management, throughput optimization.

Ray Tracing in a Weekend – Ray Tracing: graphics, parallelization.

SKILLS

Programming Languages: Bash, C/C++, CUDA, Java, Rust, Python

Tools & Tech: Git, \LaTeX , DbVisualizer, AWS (API Gateway, DNS, DynamoDB, Lambda, Neptune, S3, Secrets Manager, Sagemaker), Docker, SQL, NoSQL, Jira, Apache Gremlin

Machine Learning: DeepLearning4J, TensorFlow, Machine Learning Java (Personal Project)