

# 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

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### 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

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### 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#### *Sentinel-1 Superseded*

REST API for end-user access to superseded data.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

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

**Tools & Tech:** Git,  $\text{\LaTeX}$ , AWS (API Gateway, DNS, DynamoDB, Lambda, Neptune, S3, Secrets Manager, etc.), SQL, Jira, Apache Gremlin

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