Kaleb Burris

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

Skills

Programming Languages: C, C++, CUDA, Java, Rust (Actix Web, Polars, Rayon, Rocket, Serde, Tokio), Python (Boto3, TQDM, Pandas, Pytorch)

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

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

Education

University of Alaska Fairbanks — *Fairbanks*, AK
Bachelor of Science. Majoring in Computer Science. Minoring in Mathematics. — 2020 - Present

Matanuska Career and Technical High School — *Wasilla*, AK
Building Pathway. Pursuing Computer Science. — 2016 - 2020

Experience

Alaska Satellite Facility — The University of Alaska Fairbanks, *Fairbanks*, AK
Student Intern — September 2022 - Present
Software development on the NASA/ESA DAAC contract.

- *Sentinel-1 Superseded* - REST API for easy customer access to superseded data. Written in Rust and deployed on AWS via CloudFormation and GitHub Actions.

Personal Projects

- *Multiplicative Persistence* - Recreational mathematics project with an emphasis on data processing.
- *Arbitrary Precision* - Arbitrarily large integers. Written in Java as an addition to *Multiplicative Persistence*.
- *Machine Learning Java* - Machine learning project written in Java. Learned to apply research papers to projects.
- *Gossip Glommers* - Distributed Systems challenge with a heavy emphasis on interoperability, serialization/deserialization, and network throughput.
- *Ray Tracing in a Weekend* - Introductory ray tracing project, used to learn Rust and implement multithreading/async code and later parallelism through the GPU.