Corey Koehler

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Work Experience

KBR (formerly LinQuest): **Senior Software Engineer** August 2023 — Present

Albuquerque, NM

- Led team of 3 developers in an 8-month C++ plugin development to deliver higher-fidelity GPS modeling tools to government customer, enabling study of state-of-the-art GPS receivers in defense simulations
- Implemented 40+ API commands to expand the plugin's configuration options beyond customer expectations, leading to open-source community release and adoption by 4 government research teams
- Optimized simulation architecture to achieve 100+ GPS location computations per second, a 6x improvement over baseline AFSIM (aerospace simulation software), enabling real-time processing for large-scale government simulations
- Developed C++ and Python data processing pipelines to visualize 100 million GPS data point metrics across multiple simulation projects
- Redesigned government customer's SysML-to-simulation development workflow, reducing development errors and cutting project timelines by 3 weeks (50% faster delivery)
- Increased data transfer rates by 10x and message routing coverage by 150% over legacy methods in satellite communication simulation by developing custom communication routing protocols

NASA Jet Propulsion Laboratory (JPL): **Software Developer Intern** June 2020 — August 2020

Pasadena, CA

- Developed full-stack laboratory management system using Python (Flask, SQLite3, and Bootstrap) to streamline equipment scheduling and logistics coordination in 20+ research laboratories
- Built real-time monitoring dashboard with 100+ live-updating Matplotlib visualizations, displaying insights from user-collected data and enabling proactive lab environment management

Acqubit 3D-SensIR Inc: Software Developer Intern June 2019 — August 2019

Santa Clarita, CA

- Engineered C++ visualization and object detection pipeline using PCL and ROS for proprietary LIDAR camera system, enabling real-time 3D point cloud processing and analysis
- Integrated computer vision algorithms with the Trinity Robotics automated pallet system to eliminate the need for manual technician calibration, achieving 95% keypoint detection accuracy during setup routines

Education

University of California, Berkeley August 2019 — August 2023

B.A. Computer Science, B.A. Applied Mathematics

Technical Skills

Programming	C++, Python, C, SQL, JavaScript
Libraries:	Matplotlib, Pandas, GoogleTest, Node.js
Tools:	Visual Studio, CMake, Jira, Git

Clearance

TS/SCI (Top Secret/Sensitive Compartmented Information) June 2024— Present