

Aaron Ni

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Education

Purdue University

Bachelor's Degree, Computer Science

West Lafayette, IN

August 2022 – May 2026

Experience

Software Engineering Intern

May 2024 – August 2025

L3Harris Technologies

Fort Wayne, IN

- Developed a data processing pipeline for handling and reassembling CCSDS space packets to ingest satellite telemetry and instrument data into Elasticsearch
- Prototyped Elasticsearch as a replacement for existing in-house data storage and analysis software, significantly simplifying data management, and reducing operational overhead; presented findings to leadership and provided technical guidance for transition
- Created a RAG app using LangChain for searching and summarizing internal tech memos and lessons learned, indexed hundreds of documents and reduced information retrieval time from hours to minutes
- Updated C++ Qt applications with Elasticsearch integration and maintained internal documentation for Elastic
- Leveraged Elastic's machine learning for anomaly detection in satellite telemetry data and root cause analysis

Unity Software Developer

February 2023 – Present

Purdue Envision Center

West Lafayette, IN

- Developed a VR environmental education app to simulate effects of food systems, water usage, and energy on climate change and sea level rise in collaboration with a graduate student and professor
- Built a VR food safety training application in Unity to teach students best practices and identify areas of risk in commercial kitchen settings
- Maintained a close relationship with clients to understand project requirements and deliver MVPs

Systems Engineering Intern

May 2023 – August 2023

CACI International Inc

Crane, IN

- Worked on system integration for counter unmanned aerial systems (CUAS) and integrated sensor suites
- Applied the Systems Engineering Technical Review (SETR) process and developed a comprehensive system requirements review package for a system of systems CUAS solution
- Assisted with system operability verification testing (SOVT) and provided remote support for an outside continental U.S. (OCONUS) CUAS installation

Undergraduate Data Science Researcher

August 2022 – May 2023

Microsoft Corporate Partner - The Data Mine - Purdue University

West Lafayette, IN

- Collaborated with Microsoft and Mojang through The Data Mine at Purdue to gain insight into community sentiments and player behaviors around the game *Minecraft* to make more educated decisions for the game's development
- Maintained social media listeners and built web scrapers using Selenium to bypass API restrictions, resulting in a 200% increase in volume of aggregated data
- Engineered an automated ETL pipeline in Azure Databricks utilizing PySpark to perform data cleaning, natural language processing, topic modeling, and sentiment analysis
- Worked in an Agile Scrum environment, delivered weekly stand-ups to Microsoft product owners and mentors, and actively contributed to documentation

Projects

Codestrands | Next.js, Typescript, Tailwind CSS, Actix Web, Rust, PostgreSQL, Redis, Docker, Figma

January 2023

- Collaborated with 3 teammates in a 36-hour hackathon to create a full stack social media web app for connecting open source developers and collaborators for projects and hackathons
- Led the front end development using Next.js, Typescript, and Tailwind while closely collaborating with back end team

SchedLink | Flutter, Dart, Firebase, Figma

August 2019 – February 2021

- Created a cross-platform student/teacher portal app for connecting high school students and faculty
- Achieved 10k+ site views/day, 1k+ app downloads across iOS and Android

Skills

Languages & Frameworks: Java, C#, Python, C/C++, JavaScript, HTML/CSS, SQL, R, Flutter, React, Node.js, Tailwind

Tools & Skills: Git, Linux, Command Line Interface (CLI), CI/CD, Github, Bitbucket, Jira, Figma, Blender (Animation & 3D Modeling), Unity, Web/App Development, Data Structures, Algorithms, UI/UX Design