

JASON CHANDLER WEEKS

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Professional Experience

C Spire

May 2023 – August 2023

Software Engineer Intern, Tools & Automation Team

Ridgeland, MS

- Extended the REST API and SQL Server backend of Arkis, an internal ASP.NET Core fiber-network management platform, adding functionality for field technicians to log fiber installation operations for customers as part of a build-out plan spanning nearly 1,000 miles of fiber and 200,000 homes across the Southeastern United States.
- Restructured the SQL Server data model supporting route installation, enabling designers to track construction status and related data for individual fiber segments.
- Implemented automated application health checks and outage notifications, improving system visibility and reducing average incident response time from roughly 30 minutes to roughly 5 for the Tools & Automation team.

Global Computing Laboratory

August 2025 – Present

Graduate Research Assistant

Knoxville, TN

- Enhanced an existing continental-scale soil moisture inference pipeline for drought prevention by fine-tuning geospatial foundation models, improving spatial resolution from 27 km to 10 m and decreasing RMSE by up to 22%.
- Containerized the scientific workflow with Docker and centralized datasets in AWS S3, enabling researchers to reproduce experiments across local, high-performance computing, and cloud environments.
- Followed an Agile workflow within the lab, participating in daily stand-ups and biweekly sprint planning and update meetings.

Mississippi State University, Department of Computer Science

February 2024 – May 2025

Undergraduate Research Assistant

Starkville, MS

- Developed a symbolic-regression (SINDy) model to forecast month-over-month changes in vesicular stomatitis virus cases as an early-warning signal for outbreak spread, achieving a mean absolute error below one case per month.
- Collaborated with USDA scientists to build a JavaScript and Plotly visualization tool with interactive choropleth maps of case data across North American counties (U.S., Mexico, and Canada), helping environmental researchers analyze and communicate experimental results.

Education

University of Tennessee, Knoxville

Expected May 2027

Master of Science in Computer Science | GPA: 3.6/4.0

Knoxville, TN

Mississippi State University

May 2025

Bachelor of Science in Software Engineering | GPA: 4.0/4.0

Starkville, MS

Technical Skills

Languages: Python, C++, C, C#, TypeScript, JavaScript, SQL

Frameworks: ASP.NET Core, React, Next.js, Express, FastAPI, Tailwind CSS, PyTorch, Scikit-learn

Databases: SQL Server, PostgreSQL, MongoDB

Cloud and DevOps: Microsoft Azure, AWS, Docker, Kubernetes, GitHub Actions

Tools and Concepts: Git, GitHub, Linux, Bash, Agile, xUnit, REST APIs

Projects

Yet Another Workspace (YAW)

July 2026 | GitHub

- Built an all-in-one productivity workspace in ASP.NET Core and React, integrating email, AI assistance, notes, calendars, and task management into one web application.
- Added secure authentication with ASP.NET Core Identity, Google OAuth, email verification, and JWTs.
- Deployed the application to Azure App Service, with 25 real users signed up.

Homelab

- Deployed a self-hosted Linux homelab using Docker and Kubernetes, exposing containerized services through Cloudflare Tunnel and an NGINX reverse proxy.
- Implemented a GitHub Actions CI/CD pipeline that runs xUnit tests and automatically deploys application updates to the server over SSH after each push.