Steven Naliwajka

Electrical Design Engineer: MSECE, Kennesaw State University
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EXPERIENCE

Electrical Design Engineer Jan 2024 to Present
Salas O'Brien *Atlanta, Georgia*
Power, fire alarm, lighting and data systems in Revit and AutoCAD, designed to NFPA 70.

- Design power, fire alarm, lighting and data systems to NFPA 70 (National Electric Code).
- Write a Revit automation plugin in C# against the Revit API that builds and exports COMcheck energy-code compliance forms straight from the model, packaged as a single install across multiple Revit versions.
- Moved code signing to Azure Trusted Signing: builds sign against a certificate held in Microsoft's HSM and timestamp each artifact, replacing a self-signed certificate that every machine had to be told to trust.
- Train and onboard new hires, two-plus years running: Revit and AutoCAD training, drawing standards and the in-house tooling.
- Write the supporting desktop tools in C#/WinForms and PowerShell: drawing-set reconstruction, an MEP schedule scanner, and a launcher that versions and updates each tool.

Owner Aug 2025 to Present
Printect *Atlanta, Georgia*
3D-printing storefront, built and operated solo.

- Wrote the full stack: catalog and cart, a quoting engine that slices an uploaded model and prices it, build-plate packing, a print queue driving the printers, label generation and payment capture.
- Live commercial rails: Stripe, PayPal and EasyPost postage, behind a self-hosted identity provider.
- Software-defined STL generation: parametric parts emitted from code, so a change in size or fit is a parameter rather than a redraw.

Computer Science T.I. (Teaching Instructor) Aug 2023 to Dec 2023
Kennesaw State University *Marietta, Georgia*
Taught C#, Java, Python and SQL to students.

Intern Feb 2023 to Aug 2023
3C Software *Atlanta, Georgia*
Supported ERP implementations using SQL and VBScript.

Fast Food Cook Oct 2022 to Jan 2023
Chick-fil-A Restaurants *Marietta, Georgia*
Kitchen and food preparation.

Commissioner Jun 2022 to Aug 2022
Woodruff Scout Camp *Blairsville, Georgia*
Supported visiting units through the camp program.

Laboratory Technician May 2018 to Oct 2021
North Metro Pool & Spa, a BioGuard Platinum Dealer *Woodstock, Georgia*
Water chemistry testing and product recommendations for customers.

Soccer Referee Sep 2019 to Dec 2020
Cherokee Soccer Association *Woodstock, Georgia*
Officiated youth league matches.

EDUCATION

M.S. Electrical and Computer Engineering (MSECE) May 2025 to Dec 2026 (ongoing)
Kennesaw State University
Electrical, Electronics and Communications Engineering
Focus: Artificial intelligence and RF communications

B.S. Electrical Engineering 2020 to Apr 2025
Kennesaw State University
Minor in Computer Science

SKILLS

Languages: Python, Go, C#, Java, JavaScript, SQL, Bash, PowerShell, VBScript

Electrical: Revit, AutoCAD, NFPA 70 / NEC, Power distribution, Lighting design, Circuit design, KiCAD, PCB design, SOLIDWORKS

Infrastructure: Proxmox, LXC / Docker, nginx, MikroTik / VLANs, WireGuard, GitLab CI/CD, Postgres, Let's Encrypt, Linux

Software: FastAPI, REST API design, WinForms, Revit API, OAuth / OIDC, Stripe / PayPal, Artificial intelligence

CODE

1,689,884 lines across 67 private repositories, self-hosted on GitLab and running in production.
148,772 lines across 10 public repositories on GitHub.
256,574 lines of production C# and tooling written professionally at Salas O'Brien, across 5 internal repositories.
By language: Rust 702,900, Python 338,137, C# 248,764, Lua 231,041, Markdown 137,919, Java 100,432
Counted first-party only: vendored dependencies, build output, minified bundles and lock files are excluded. Live figures at www.naliwajka.com/people/stevennaliwajka.

RESEARCH

Exploring Integrated Sensing and Communication using TV White Space Spectrum for Precision Agriculture Dec 2025
IEEE ANTS 2025: First author
Co-authors: Mariel Benson, Steve Adcock, Asmita Naitam. Advisors: Sumit Chakravarty, Ashwin Ashok, Kennesaw State University.

FS-Testbed dashboard (www.fs-testbed.com): The testbed's live dashboard, and the thing that makes the integrated sensing and communication case testable. It puts three streams from the KSU Field Station on one timeline: atmospheric readings above ground, buried soil sensors below it, and TV White Space signal measurements across the same ground. Read together, the link is doing two jobs at once: carrying data, and having its own propagation across the field become a measurement of that field. Built on Plotly Dash and served from my own hardware, not a hosting provider.

SELECTED PROJECTS

The home lab
Infrastructure

A Proxmox cluster running roughly two dozen self-written services: VLAN-segmented networking, WireGuard access, an nginx edge with automated certificates, and a private GitLab that deploys every service through CI/CD behind a manual production gate.

Proxmox, LXC, MikroTik, WireGuard, nginx, GitLab CI/CD, Cloudflare, Postgres

The public site (www.naliwajka.com)
Platform

The public face of the estate, served from my own hardware rather than a host: the storefront, a 3D-print portal, a status service and this resume, all behind one nginx edge with automated certificates and a self-hosted sign-in shared across them.

Python, nginx, OAuth / OIDC, Cloudflare, GitLab CI/CD

Printect storefront (www.printect.net)
Commerce

Upload a model, get it sliced, quoted, packed onto a plate, printed, labelled and paid for. Live commercial rails end to end.

Go, Python, Stripe, PayPal, EasyPost

MGMT management plane
Platform

The control plane for the estate: a web UI and CLI that configure Proxmox, GitLab and MikroTik, a credential rotation engine covering roughly 86 live secrets, and a scoped tool server for agent access.

Python, FastAPI, Proxmox API, MCP

Affordable 3D PCB Printing for Prototyping
Senior project

Undergraduate senior design project: desktop-budget printed-circuit-board prototyping.

PCB design, KiCAD, Hardware

BillCure
Hackathon

API and web app that scans a medical bill and flags overcharges. Built in 30 hours; 2nd place, KSU Mobile Apps for Well-Being.

API design, Web app

EcoPulse
Hackathon

Gives a company a quick read on its unseen carbon emissions and water usage. KSU hackathon for social good.

Web app, Data

Minecraft world platform
For fun

A public game server whose map is version-controlled code: a Java plugin, datapacks and RCON builders, with a nightly window that records, updates and rolls back on failure.

Java, Paper API, Bash, Docker

KSU Fan Engagement toolkit
Hackathon

A suite of tools to get students to games and keep them engaged once there. Built in 36 hours; 1st place in Fan Engagement, KSU Sports Innovation Hackathon.

Web app, API design

HONORS AND AWARDS

First Author, IEEE ANTS 2025 paper on TV White Space sensing Dec 2025
IEEE ANTS
"Exploring Integrated Sensing and Communication using TV White Space Spectrum for Precision Agriculture."

FE (Electrical and Computer) Mar 2025
NCEES
Passed the Fundamentals of Engineering exam.

1st place, Fan Engagement, KSU Sports Innovation Hackathon Feb 2025
Kennesaw State University
A suite of tools to get students to games and keep them engaged. 36 hours.

2nd place, Mobile Apps for Well-Being, KSU Hackathon Mar 2025
Kennesaw State University
BillCure: an API and web app that scans medical bills for overcharges. 30 hours.

Eagle Scout Dec 2019
Boy Scouts of America