DAVID J. BRAUN

AI SYSTEMS & PLATFORM ENGINEER

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PROFESSIONAL SUMMARY

Software/platform engineer with 6+ years of enterprise software, infrastructure, cybersecurity, API integration, and independent consulting experience; completing an M.S. in Artificial Intelligence. Works across AWS, Kubernetes/Docker, TypeScript/React, Python, CI/CD, and applied retrieval/data pipelines.

TECHNICAL SKILLS

Software & AI: Java, Kotlin, Python, TypeScript/JavaScript, React, Next.js, Node.js, Spring Boot, FastAPI, REST, retrieval/RAG

Cloud & Platform: AWS (EKS, ECR, EC2, S3, RDS, Lambda, Lightsail), Kubernetes, Docker, OpenShift, Nginx, Redis

Delivery & Security: GitHub Actions, Ansible, CloudFormation, Helm, CircleCI, CodeQL, SonarQube, SAST/DAST, Playwright

Data: ETL/ELT, Parquet, APIs, telemetry, pipeline validation, Linux, Git, experiment documentation

PROFESSIONAL & RESEARCH EXPERIENCE

Founder & Principal Software Engineer | People's Connection LLC | Self-employed — Jun 2020 - Present

Minnesota / Remote; concurrent consulting

- Own client delivery across applications, APIs, cloud infrastructure, security, CI/CD, and ongoing operations.
- Maintain production VIFG platform using React, Docker/Nginx, AWS Lightsail/ECR/Route 53, accessibility checks, and GitHub Actions; delivered additional client websites and workflows.

Graduate Research Assistant | University of St. Thomas | PTE — Sep 2026 - Present

ECE / SCALE; research with Prof. Hassan A. Salamy

- Developed PX4/Gazebo X500 simulation and fault-injection workflows, automated flight trials, archival telemetry, and provenance records.
- Collected a 30-run pilot (6 healthy controls, 24 injected-fault runs); diagnostic performance remains under evaluation.

Graduate Tutor / Computer Systems Support | U. of St. Thomas | PTE — Dec 2025 - Present

Software Engineering & Data Science | Saint Paul, MN

- Provide graduate tutoring and computer systems support to university students.

Systems Engineer | U.S. Bank | Contract — Nov 2024 - Feb 2025

Minneapolis, MN (Remote)

- Troubleshot enterprise REST API integrations using Postman; coordinated vendors, engineering teams, and escalation documentation.

Infrastructure Engineer | Securian Financial | FTE — Oct 2022 - Mar 2024

Saint Paul, MN (Remote)

- Automated AWS provisioning and deployments using Ansible; supported Java/Spring services on EKS/Kubernetes using Helm and kubectl.
- Developed Python automation that reduced recurring manual processing effort by approximately 40%.

Cybersecurity Engineer | GE Aviation | Contract — Oct 2021 - Oct 2022

Cincinnati, OH (Remote)

- Remediated Java/React SAST/DAST findings and implemented CSRF, OAuth2/JWT, OpenShift, and API security improvements.

Software Engineer | Target | Contract — Jun 2019 - Jun 2020

Minneapolis, MN

- Built React applications and Kotlin services; worked across EKS/Kubernetes, Helm, CircleCI, and Ansible pipelines.
- Resolved issues in 30+ repositories and led build/dependency modernization across 50+ repositories.

Software Developer | Graphic Systems LLC — Jul 2018 - Nov 2018

Minneapolis, MN

- Maintained inventory/shipment software and API integrations, including Four51 batch-upload workflows.

Space Physics Data Analyst / Intern | Augsburg University — May 2016 - Aug 2017

Minneapolis, MN | Research internship

- Processed satellite and magnetometer data using IDL/Python; produced FFT-based plots and spectrograms supporting research analysis.

SELECTED SYSTEMS & APPLIED RESEARCH

WeatherForge | NOAA Minnesota Severe-Weather Analytics 2026

Collaborative academic R&D | Lead developer / primary implementer

- Developed a Python/Shiny data pipeline and dashboard from ~35 GB of NOAA sources into 55,384 Minnesota storm records and 9,008,748 station-day observations; descriptive decision support, not forecasting.

Urarina-Spanish Archives | Archival Information Retrieval 2026

Collaborative applied research | IEEE LA-CCI 2026 paper accepted

- Contributed to graduate research on information retrieval for low-resource historical linguistic archives with Prof. Michael Dorin; related IEEE LA-CCI 2026 paper accepted, presentation/publication pending.

RAGeATM | Evidence-Bound Retrieval Prototype 2026

Academic project | Python / TF-IDF / cosine similarity

- Implemented retrieval ranking, relevance-based refusal, 15 indexed chunks, and a small seven-question benchmark; not production AI.

SELECTED RESEARCH & PUBLICATIONS

Urarina-Spanish Archival Research | Accepted Conference Paper 2026

Urarina-Spanish case study | IEEE LA-CCI 2026 | Accepted conference paper

EMIC Wave Events During the Four GEM QARBM Challenge Intervals 2018

Journal of Geophysical Research: Space Physics | Coauthor

AGU Fall Meeting Research Presentations 2017

Contributor | SM51B-1176 and SM31B-2629

EDUCATION & CERTIFICATIONS

M.S. Artificial Intelligence - University of St. Thomas (expected Dec 2026).

Graduate Certificate in Big Data - University of St. Thomas (expected Dec 2026).

B.S. Mathematics, Physics & Computer Science - Augsburg University (2020; one degree, three majors).

AWS Certified Cloud Practitioner (Apr 2024 - Apr 2027).