

DAVID J. BRAUN

AI SYSTEMS & PLATFORM ENGINEER

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PROFESSIONAL SUMMARY

AI systems and platform engineer with 6+ years spanning software engineering, cloud infrastructure, cybersecurity, enterprise API integration, and applied AI research. Delivered systems across Target, GE Aerospace, Securian Financial, U.S. Bank, and consulting engagements. Strong in AWS, Kubernetes/Docker, Java/Kotlin, Python, TypeScript/React, CI/CD, and retrieval/data pipelines; pursuing an M.S. in Artificial Intelligence with an IEEE LA-CCI 2026 paper accepted in low-resource information retrieval.

CORE TECHNICAL SKILLS

Applications & AI: Java, Kotlin, Python, TypeScript/JavaScript, React, Next.js, Node.js, Spring Boot, FastAPI, REST APIs, LLM/RAG workflows, information retrieval

Cloud & Platform: AWS (EKS, ECR, EC2, S3, RDS, Lambda, Route 53, Lightsail), Kubernetes, Docker, OpenShift, Nginx, Redis

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

Data & Systems: Data pipelines, ETL/ELT, Parquet, API integration, model/retrieval evaluation, Linux, Git, technical documentation

PROFESSIONAL EXPERIENCE

Founder & Principal Software Engineer | People's Connection LLC

Jun 2020 - Present

Remote / Minnesota

- Own the full delivery lifecycle for client-facing and mission-driven systems, from architecture and application development through cloud infrastructure, CI/CD, security, and ongoing operations.
- Operate the production VIFG platform across React, Docker, Nginx, AWS Lightsail/ECR/Route 53, SSL/TLS, accessibility validation, dependency/security checks, and automated GitHub Actions deployments.
- Delivered additional client and partner systems, including a CloudFormation/S3-based QR media workflow and web/platform work for time2move.io, ARK Landscaping, Outerly, 3C1S, and other initiatives.

Graduate Tutor / Computer Systems Support | University of St. Thomas

Dec 2025 - Present

Department of Software Engineering and Data Science | Saint Paul, MN

- Provide graduate tutoring and computer systems support within the Department of Software Engineering and Data Science.

Systems Engineer | U.S. Bank

Nov 2024 - Feb 2025

Minneapolis, MN (Remote)

- Validated and troubleshot REST API integrations with Postman across internal enterprise systems, improving request/response reliability and data consistency.
- Coordinated with external vendors and cross-functional engineering teams to diagnose integration issues and document repeatable support and escalation workflows.

Infrastructure Engineer | Securian Financial

Oct 2022 - Mar 2024

St. Paul, MN (Remote)

- Authored and maintained Ansible playbooks for AWS server provisioning, configuration, and application deployment, improving repeatability and operational reliability.
- Supported Java/Spring Boot services in AWS EKS/Kubernetes using kubectl, Helm, deployment configuration, and workload-capacity settings; operated applications across EC2, S3, and RDS.
- Automated recurring data-processing workflows with Python, reducing manual operational effort by approximately 40%, while supporting GitHub, SonarQube, and SauceLabs tooling.

Cybersecurity Engineer | GE Aviation

Oct 2021 - Oct 2022

Cincinnati, OH (Remote)

- Remediated vulnerabilities across Java and React applications using AVA/SAST/DAST findings and worked in OpenShift environments by editing deployment YAML and inspecting pods.
- Implemented CSRF protections and OAuth2/JWT endpoint hardening; designed and documented REST APIs with Swagger/OpenAPI across distributed teams.

Software Engineer | Target

Jun 2019 - Jun 2020

Minneapolis, MN

- Built and supported React applications and Kotlin microservices for internal retail systems, including AWS EKS/Kubernetes delivery with kubectl, Helm, CircleCI, and Ansible-based workflows.
- Diagnosed and resolved issues across 30+ repositories and led modernization across 50+ repositories through dependency upgrades, build-tool migration, and configuration standardization.

SELECTED SYSTEMS

WeatherForge - Minnesota Severe Weather Risk Analytics Dashboard

R&D / Academic Prototype

Python | Shiny | Plotly | Parquet | NOAA Storm Events | NOAA GHCN-Daily

- Led development of WeatherForge, a three-person University of St. Thomas SEIS 745 project with Odin Lee and Jannah ElNemr; implemented the substantial majority of the application code across the data pipeline, analytics, and dashboard layers.
- Built Python/Shiny workflows that transformed approximately 35 GB of NOAA data into 55,384 cleaned Minnesota storm-event records and 9,008,748 station-day observations across all 87 counties; framed the system as decision support, not a forecasting or actuarial model.

SELECTED RESEARCH & PUBLICATIONS

Hybrid Retrieval Evaluation for Low-Resource Language Archives: A Urarina-Spanish Case Study <i>IEEE LA-CCI 2026 - Accepted Conference Paper</i> <i>David Braun and Michael Dorin</i> Evaluated hybrid information-retrieval methods for low-resource archival material spanning text, image, and audio-oriented records; current research focuses on retrieval/alignment rather than claiming completed machine translation.	2026
EMIC Wave Events During the Four GEM QARBM Challenge Intervals <i>Journal of Geophysical Research: Space Physics - Coauthor</i> DOI Contributed Augsburg-based analysis of satellite and ground magnetometer data for collaborative EMIC-wave research; the study incorporated REPT and MagEIS observations as part of its broader multi-instrument data context.	2018
AGU Fall Meeting Conference Outputs <i>American Geophysical Union</i> Co-contributor on "EMIC wave events during the four QARBM challenge intervals" (SM51B-1176) and "Nightside High Latitude Magnetic Impulse Events" (SM31B-2629).	2017

EARLY RESEARCH EXPERIENCE

Data Analyst - Space Physics Internship Augsburg University <i>Minneapolis, MN</i> - Used IDL and Python to ingest, transform, and analyze satellite and ground-based magnetometer observations; generated line plots, FFT-based spectral visualizations, and spectrograms. - Manually reviewed large volumes of resulting visualizations to identify candidate and anomalous events for research-team analysis, contributing to 2017 AGU outputs and the 2018 JGR publication.	May 2016 - Aug 2017
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EDUCATION & CERTIFICATION

Master of Science in Artificial Intelligence <i>University of St. Thomas Saint Paul, MN</i> In progress; Department of Software Engineering and Data Science.	Expected Dec 2026
Graduate Certificate in Big Data <i>University of St. Thomas Saint Paul, MN</i> In progress alongside the M.S. program.	Expected Dec 2026
Bachelor of Science (B.S.) - Mathematics, Physics, and Computer Science <i>Augsburg University Minneapolis, MN</i> One B.S. degree with majors in Mathematics, Physics, and Computer Science.	2014 - 2020
AWS Certified Cloud Practitioner <i>Amazon Web Services (AWS) Verify credential</i>	Apr 2024 - Apr 2027

ADDITIONAL EXPERIENCE & PROFILES

Software Developer - Graphic Systems LLC Minneapolis, MN Jul 2018 - Nov 2018 - Maintained shipment/inventory software and API workflows, including Four51 batch-upload integration. Google Scholar ORCID 0009-0003-9821-8349 AGU Profile	
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