

# Peter Hagen

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## Summary

Data and systems professional with **5+ years of experience in analytics, modeling, and business intelligence**. Skilled in **Python, R, SQL, Tableau, and Excel**, with a background in **data visualization, financial/energy modeling, and systems engineering**. Experienced in building dashboards, automating reporting, and delivering insights that drive strategy and efficiency. Strong communicator with cross-functional experience across **finance, government, and technology** sectors.

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## Core Skills

- Data Analysis & Visualization (Tableau, Excel, SQL, Python, R)
  - Business Intelligence & Reporting Automation
  - Statistical Modeling, Forecasting, and Predictive Analytics
  - Financial & Market Analysis (Energy, Trading, Risk)
  - Systems Engineering & Process Optimization
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## Professional Experience

**National Association of Home Builders** – Washington, DC  
*Senior Data Analyst* | Feb 2023 – Jul 2025

- Built dashboards and reports for 114,000+ member records, improving executive insights and retention strategies.
  - Automated reporting processes, improving efficiency and accuracy.
  - Delivered presentations and analysis to leadership on trends, growth, and engagement.
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**Defense Government Contracting International** – McLean, VA  
*Business Analyst* | Apr 2019 – Nov 2020

- Developed models to analyze fuel bids, pricing, and energy markets.
  - Used statistical methods to assess contract outcomes and risk.
  - Supported multimillion-dollar decisions with predictive analytics.
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**Jovie (College Nannies + Tutors)** – Fairfax, VA  
*Business Analyst* | Nov 2016 – Jul 2018

- Automated data processes with Python/R, improving operational efficiency.
  - Designed SQL reporting to support workforce allocation for 200+ employees.
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**National Rural Electric Cooperative Association (NRECA)** – Arlington, VA  
*Intern* | May 2015 – Aug 2015

- Assisted with solar panel proposal and documentation system reorganization.
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*Other roles:* Amazon (Driver), Olio2Go (Business Associate), Meadows Farms Nursery (Laborer).

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## Education

**George Mason University** – Fairfax, VA  
*M.S. Systems Engineering* | Jan 2018 – May 2019 | GPA: 3.98

- Capstone: Commercial Aircraft Failure Analysis
- Projects: Drone crisis-response simulation; UML modeling of electric load balancing

**Virginia Tech** – Blacksburg, VA  
*B.S. Industrial & Systems Engineering, Minor in Business* | Aug 2011 – Dec 2015 | GPA: 3.01

- Capstone: Facility redesign analysis at New River Carillion Hospital
- Division 1 Club Lacrosse Team – Conference Champions (2013, 2014)

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## Certifications

- **Data Science Specialization**, Johns Hopkins (Coursera) – Capstone: N-Gram modeling for word prediction
- **Data Marketing Specialization**, Johns Hopkins (Coursera)

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## Projects

- **Sentiment Analysis Scraper:** Built NLP pipeline tracking sentiment across thousands of news sites; deploying on AWS with AI + APIs.
- **Data Visualization Portfolio:** Designed high-impact Tableau dashboards for executive audiences.