

# Benjamin A. Carman

Client-Facing Senior Software Engineer | Engineering Team Lead | Active U.S. Secret Clearance

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## EDUCATION

**University of Illinois Urbana-Champaign, Grainger College of Engineering, Urbana, IL** Dec 2023  
Master of Computer Science in Data Science 3.87 GPA

**Ohio University, Honors Tutorial College, Athens, OH** May 2021  
Bachelor of Science, Double Major: Computer Science and Mathematics 4.00 GPA

**Computer Science Thesis:** *Translating LaTeX to Coq: A Recurrent Neural Network Approach to Formalizing Natural Language Proofs*

**Math Thesis:** *Repairing Redistricting: Using an Integer Linear Programming Model to Optimize Fairness in Congressional Districts*

**Honors:** OHIO Premier Scholarship Recipient (Full Tuition), National Eagle Scout Association \$25K Cooke Scholarship Recipient,  
Awarded Internationally Competitive DAAD RISE Germany Research Internship (Universität Bonn, 2019)

## WORK EXPERIENCE

### C3 AI | Redwood City, CA

Senior Solution Engineer May 2025 – Current  
Solution Engineer Nov 2022 – Apr 2025  
Forward Deployed Engineer May 2022 – Oct 2022  
Associate Forward Deployed Engineer Jun 2021 – Apr 2022

#### Client-Facing Technical Leadership

- Pod Lead for Gen AI Solution Engineering, **directing 18 engineers & overseeing ~10 initial production deployments**
- Regularly execute high-stakes customer demos and workshops; **consistently praised by internal leaders and customers for clear, persuasive communication** and ability to de-escalate stakeholder concerns
- Led interview process revamp, redesigned coding exercises and rubrics to improve hiring quality

#### Full-Stack Engineering Delivery

- Designed & developed **8+ full-stack enterprise AI applications (from 0→Production)** across healthcare, energy, utilities, supply chain, and defense using JavaScript, Python, React, TypeScript, and the C3 AI platform
  - Led 4-person engineering team to design and build a mission-critical supply chain app for DoD from scratch, scaling to ingest **50M+ records with low-latency queries**, securing a **7-figure contract expansion**
  - Led development of a **GenAI-powered document extraction** application for Bristol Myers Squibb, converting **15K+ complex**, unstructured PDF, DOCX, and XLSX files into structured data for ML training
- Secured FedRAMP Authorization to Operate (ATO) for a U.S. federal health agency in <6 months by deploying compliant platform infrastructure on AWS GovCloud under high security constraints

#### Strategic Business Acumen & Cross-Functional Impact

- **Drove major "Data Lakehouse" feature development** in C3 Platform by identifying product gaps, writing user stories, and partnering with Product leadership to enhance engineer-analyst-data scientist collaboration within C3 ecosystem
- Led complex project recovery efforts with executive stakeholders, restoring timelines and end-user satisfaction

### Carnegie Mellon University, Institute for Software Research | Pittsburgh, PA

Research Experience for Undergraduates (REU) Research Assistant May 2020 – Aug 2020

- Researched applications of multi-agent reinforcement learning (RL) to combat poaching
- Designed and implemented game environment and visualization with OpenAI Gym to model poachers seeking targets in the wild while rangers and drones try to catch/deter poachers
- Evaluated and optimized coordinated defender strategies using RL algorithms MADDPG and PPO

## SKILLS

**Programming Languages:** Python, JavaScript, TypeScript, C++, HTML, CSS, Rust, Coq, R

**Frameworks:** React, Pandas, Pytorch, Scikit-learn, NumPy, SciPy, Seaborn, Matplotlib, OpenMP, OpenCV, Gym

**Tools:** Git, Docker, Jenkins, AWS, QGIS, Tensorboard, Weights & Biases, Doxygen, Mac, Windows, Linux

**Languages:** Spanish (Proficient), German (Beginner)

Expert in modeling & constrained optimization with AMPL & Gurobi APIs

Expert in several machine learning, deep learning, & reinforcement learning algorithms