Daniel Coblentz

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EDUCATION

Hood College B.S. Computer Science, Minor in Mathematics, GPA: 3.80 / 4.0 *Expected May 2026*

- **Relevant Coursework:** Data Structures & Algorithms, Operating Systems, Data Mining, Artificial Intelligence, Linear algebra
- **Awards:** Trailblazer scholarship (merit-based scholarship), Dean's List x4, Volpe Scholar (top 2% of students), Upsilon Pi Epsilon international honor society (top 5% of students), Christine P. Tischer Scholar (top 2% of UG students).

TECHNICAL SKILLS

Programming Languages: Python, Java, C++, SQL (Postgres, MySQL), JavaScript, HTML / CSS, R, Bash
Frameworks & Tools: AWS (Lambda, Cognito, Textract, S3, EC2), GCP (Firestore, Cloud Functions, Cloud Run, Pub/Sub), Firebase, Docker, Git, Postman, Spring-Boot, Node.js, Express, React, Material UI, PyTorch, Scikit-learn, Pandas, NumPy, MongoDB

WORK EXPERIENCES

Berkeley Lawrence National Lab Remote
Incoming Machine Learning Intern (AMCR division) *Aug 2025 - Present*

Berkeley Lawrence National Lab Berkeley, CA
Machine Learning Intern (AMCR division) | Python, Pandas, NumPy, PyTorch *June 2025 - Aug 2025*

- Developed an end-to-end ML training pipeline for a multimodal learning framework designed for phenotyping high risk patients
- Tuned and fused TabNet + ClinicalBERT encoders with late fusion**,** achieving a 51% improvement in clustering quality (Silhouette Score) over single-modality baselines.
- Identified clinically meaningful OSA subgroups linked to elevated comorbidity risk**,** providing actionable insights for early intervention and patient stratification**.**

Hood College CS Department Frederick, MD
Machine Learning Research Assistant | Python, Pandas, Numpy, Pytorch *Dec 2024 – Present*

- Introduced task-aware selective distillation by dynamically weighting high-signal tokens and layers during training; improved student model performance by +9% on code generation and +7% on summarization compared to uniform distillation baselines.
- Developed a token importance scoring module that filters low-signal teacher outputs using gradient-based attribution.
- Reduced distillation compute time by ~17% without degrading accuracy on standard evaluation benchmarks.

Celebrations Catering Remote
Contract Software Engineer | React, Python, Tailwind CSS, Firebase, Git *Sept 2024 – May 2025*

- Developed a full-stack scheduling platform using React, Firebase and Flask, streamlining monthly staff assignment workflows.
- Optimized scheduling engine to autogenerate 70+ shifts in <3 seconds, cutting scheduling time from 15 hours to sub 10 minutes**.**
- Implemented input validation and conflict detection, reducing assignment errors by 85% and preventing 40+ corrections/month**.**

Hood College CS Department Frederick, MD
2x Teaching Assistant (Object-Orientated Programming I & II) | Java, C++, Python *Dec 2023 – May 2025*

- Instructed over 70+ students in Data Structures & Algorithms, Discrete Mathematics and advanced programming fundamentals covering topics such as hashing, graphs, trees, sorting, Queues, OOP and Design patterns.
- Provided one-on-one and group support through office hours, review sessions, and code reviews, helping students debug complex logic errors and improve their understanding of algorithm design and object-oriented principles.

PROJECTS

Snap2Save (UC Berkeley AI Hackathon) | MiDaS/DPT, Three.js, JavaScript June 2025 – June 2025

- Built a full-stack web app that generates interactive 3D building reconstructions from 2D images using depth estimation models (MiDaS/DPT) and visualized them with Open3D and Three.js, enabling safer disaster navigation.
- Engineered a custom risk-aware pathfinding algorithm that integrated real-time fire, weather, and traffic data (Google Maps API, Folium) to guide rescue teams along optimal routes during natural disasters.
- Delivered a fully deployable web app in 36 hours with a team of 4, demonstrating fast prototyping and cross-stack integration.

LEADERSHIP

Competitive Programming Team Frederick, MD
Co-Team Lead | GitHub *Dec 2024 – Present*

- Co-organize team practices and mock contests to prepare members for regional competitions, mentor newer students in data structures, dynamic programming, and time complexity strategies.
- Developed and maintained a comprehensive repository of curated problems and solutions for new and existing members.