Ahmed Abdulla

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Education

Cornell University, Bachelor of Science | **GPA: 3.7/4.0**   **Expected May 2027**
- **Major:** Information Science **Minor:** Data Science
- **Coursework:** Operating Systems, Systems Architecture, Databases, Data Structures & Algorithms, Machine Learning, Functional Programming, Object-Oriented Programming, Probability & Statistics, Linear Algebra, Discrete Math
- **Honors:** Dean's Honors List, 1st Place – Cornell Hackathon

Work Experience

Incoming Software Engineering Intern | **Datadog** | **New York, NY**   **Summer 2026**
- Distributed Systems, Metrics Team

Research Software Engineer | **Cornell Lab of Ornithology** | **Ithaca, NY**   **Sep 2025 – Present**
- Architected scalable data pipelines combining drone imagery and acoustic recordings using Python, FastAPI, and PostgreSQL.
- Fine-tuned deep learning models for species detection, sound separation, and density estimation.
- Built internal APIs and data services delivering near-real-time analytics to researchers through a React-based dashboard.
- Implemented monitoring and automated retraining workflows using Docker, Prefect, and Google Cloud Storage for large-scale ecological datasets.

Software Engineering Intern | **Simulacrum Inc.** | **New York, NY**   **May 2025 – Aug 2025**
- Launched core backend powering time-series analytics, processing 500K+ API requests/month at sub-200ms latency.
- Developed TypeScript SDK simplifying client integration and reducing setup time by 40%.
- Deployed containerized services using Docker, FastAPI, and Nginx, routing live model requests with zero downtime.
- Integrated CI/CD workflows and production monitoring using GitHub Actions, Prometheus, and Grafana.

Software Engineering Intern | **Iconectiv LLC** | **Bridgewater, NJ**   **May 2024 – Aug 2024**
- Developed Python ETL pipeline to clean and load 14M+ GNS records into Oracle SQL, improving runtime efficiency by 35%.
- Built Angular/PrimeNG interface enabling three departments to query processed data in real time.
- Automated quarterly refresh and validation tasks using Bash, improving accuracy by 40%.

Leadership & Involvements

Cornell Data Strategy | **Vice President, Director of Tech**   **Aug 2024 – Present**
- Led 25+ developers across 3 pods to deliver 4+ production releases for enterprise clients at 600M+ scale.
- Standardized CI/CD and on-call rotations, reducing incident resolution time by 40%.
- Mentored junior developers and coordinated cross-pod collaboration to improve code quality and team efficiency.

Technical Projects

JobLink – AI Job Application Tracker | *scikit-learn, spaCy, RandomForest, OpenAI LLM*   **Apr 2025**
- Developed a full-stack platform to centralize job application emails with secure APIs and tracking dashboard.
- Built hybrid ML+rule classifier (TF–IDF, RandomForest, heuristics) to detect pipeline emails; added LLM verification for low-confidence cases.
- Engineered NLP pipeline with spaCy + LLMs achieving **97.8% precision** on entity extraction (status, dates, job IDs).

Poultry Health Monitoring Platform – 1st Place, Cornell Hackathon | *PyTorch, TensorFlow, CUDA*   **Feb 2025**
- Developed a multimodal AI platform combining acoustic and visual data to detect and prevent poultry diseases.
- Implemented CNN and audio-classification pipelines with GPU-optimized training, achieving 92% precision on live farm data.
- Built a real-time monitoring dashboard enabling farmers to track health alerts and environmental conditions remotely.

Publications

Goktas, D., Riaño-Briceño, G., **Abdulla, A.**, et al. (2025). *TempusBench: An Evaluation Framework for Time-Series Forecasting.* **NeurIPS 2025 Workshop on Recent Advances in Time Series Foundation Models (BERT2S).** OpenReview

Technical Skills

- **Languages:** Java, Python, C/C++, JavaScript, TypeScript, SQL, OCaml, Assembly, HTML/CSS
- **Frameworks/Tools:** React, Spring Boot, Flask, FastAPI, Docker, Kubernetes, Jenkins, Jira, Redis
- **Databases/Cloud:** PostgreSQL, MySQL, DynamoDB, Firebase, AWS (S3, EC2, Lambda, CloudWatch), Google Cloud
- **Machine Learning:** PyTorch, TensorFlow, Scikit-learn, Transformers, Pandas, NumPy