

Derek Bowdle

775 Harbor Cliff Way, Oceanside, CA, 92054 | (805) 637-3328 | dkbowdle@gmail.com

EDUCATION

Johns Hopkins University

Baltimore, Maryland

Master of Science in Computer Science: Database Systems and Knowledge Management

- **Relevant Coursework:** Cloud Computing, Information Retrieval, Information Assurance, Applied Machine Learning, Deep Neural Networks, Computer Vision, Quantum Computation

University of California, Santa Barbara

Santa Barbara, California

Bachelor of Science in Financial Mathematics & Statistics

- **Relevant Coursework:** Applied Stochastic Processes, Database Systems, Micro-Economic Theory, Probability and Statistics, Methods of Analysis, Regression Analysis, Mathematical Finance

WORK EXPERIENCE

RTX Corporation - Raytheon Vision Systems

Goleta, CA

Senior Engineer

2019 – Present

- Architect and maintain ETL pipelines to support data-driven decision-making in infrared detector manufacturing.
- Develop and deploy ML models to predict part and pixel failures, enhancing defect detection, manufacturing efficiency, and compliance with quality standards.
- Collaborate cross-functionally with materials scientists, engineers, and technicians to drive innovation in manufacturing process optimization and ML applications.
- Mentor and lead a data science internship program, recruiting and training interns to enhance the organization's data analysis capabilities.

Bucket Property

San Diego, CA

Founder, CTO

2024 – Present

- Won the 2024 iStart Valley Startup Accelerator with our Minimum Viable Product (MVP)
- Construct an automated web scraping system that processes millions of real estate web pages.
- Design and implement an Extract, Transform, Load pipelines to aggregate and preprocess data from multiple sources efficiently.
- Build a cross-directional imputation model to estimate missing time-series values, enhancing data completeness and accuracy.
- Integrate third-party APIs to enrich datasets and improve predictive insights.
- Develop a scalable Node.js backend API to support real-time data access and analytics.

SKILLS

Machine Learning & AI: Neural Networks, Deep Learning, CNNs, GANs, Transformer Models

Data: SQL, MongoDB, SSIS, AWS, Azure, Data Preprocessing, Feature Engineering, Model Evaluation

Programming: Python, CUDA, TensorFlow, PyTorch, OpenCV, Scikit-learn, Java, JavaScript, C++, Git