Dylan Bent

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Summary

I am an electrical engineering graduate with a focus in data, embedded, and controls engineering. I have hands-on experience in data engineering, cloud infrastructure, mobile development, FPGA-based embedded systems, industrial data platforms, and machine learning models.

Education

Florida International University | *Bachelor of Science, Electrical Engineering* **Dec 2025**

Work Experience

Radix Engineering | *Data Engineering Intern* **May 2023 - Jan 2024**
- Developed a machine learning real-time quality control platform for root cause analysis
- Reduced troubleshooting time by 25% for client's manufacturing process
- Ingested IoT data for 600+ industrial sensors in AWS Timestream database
- Archived 1000+ GBs of CSV data in a Historian system with S3 and Athena
- Cleaned and labeled IoT data using AWS Lookout for Equipment and Sagemaker

UKG | *Cloud Engineering Intern* **Jan 2023 - Apr 2023**
- Collaborated on a DevOps GitHub bot to manage pull requests for cloud infrastructure teams
- Developed a GitHub event handling service using Go Server in Google Cloud Run and Google's PubSub messaging queue
- Automated approval process for over 10,000+ annual infrastructure changes with Temporal
- Faster (85%) and more detailed analysis of infra request failures

Chewy | *Data Engineering Intern* **Jun 2022 - Aug 2022**
- Modernized internal Flask app for data warehouse quality assurance
- Reduced load time (95%) by optimizing database connections
- Added new security authorizations and permissions
- Upgraded API to newer standards
- Conducted user testing to ensure proper implementation of requirements
- Wrote low- and high level technical documentation
- Refactored code and project structure for readability and clarity

Shopify | *Mobile Developer Intern* **Sep 2021 - Apr 2022**
- Shipped global receipt formatting bug-fix to ensure financial compliance
- Debugged Kotlin Multiplatform modules to ensure application integrity across iOS and Android
- Worked on internationalization changes to ensure global usability
- Produced code documentation using a state model to demonstrate code flow
- Utilized in-person user feedback from New York merchants in addressing common pain points
- Assisted development team migrate PoS application from native frameworks to React Native
- Developed unit tests for changes to the application interface

Projects

SecureVision (Senior Design Project) | *Lockheed Martin* **2025**
- Secure embedded computer vision system using Pynq Z2 and Xilinx Vivado
- Developed an FPGA IP for cryptographic functions including AES encryption and SHA hashing
- Developed a Python computer vision model (YOLO) using an FPGA IP for onboard acceleration
- Project is designed for commercial or defense computer vision applications that require high levels of confidentiality and data integrity

Texas Instruments Summer Project | *Texas Instruments* **2020**
- Designed a warehousing robot prototype to take stock of inventory using C++ and the TI-RSLK platform
- Utilized wireless communication technology (RFID) to record stock information
- Reported costs and alternatives of materials used

Skills

- **Data Systems:** Python, PyTorch, SQL, PySpark, Docker, Kubernetes, Hadoop, Pandas, Matplotlib, Seaborn, Power BI, Tableau
- **Embedded Systems:** VHDL, Verilog, Xilinx Vivado, C, C++
- **Control Systems:** MATLAB, LabVIEW, wxWidgets