

Dhruti Vadlamudi

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Portfolio: portfolio-gamma-navy-61.vercel.app

Education

University of Washington — Seattle, WA (Expected Grad: 2026)

B.S. in Computer Science

Minor in Business Administration and Computational Finance

GPA: 3.94

Relevant Coursework: Intermediate Data Programming, Data Programming, Programming I and II, OOP, C++, C#, Foundations of Computing I and II, Hardware and Software Interface, Computer Vision, Machine Learning, Computer Security, Data Visualization, Artificial Intelligence, Software Design and Implementation, Operating Systems, Databases, Marketing, Personal Finance

Experience

AI Intern, *Confluence Environmental Company*, Seattle, WA

Jun 2025 – Aug 2025

- Led development of AI-powered environmental analytics tools, integrating multi-source data pipelines to automate compliance reporting and reduce manual review by 50 percent.
- Designed and trained a custom Transformer-based natural language generation model from scratch using historical proposal data; optimized inference using PyTorch and Hugging Face Transformers.
- Enhanced data processing throughput by 40 percent via optimized Python scripts, vectorized operations, and parallel computing on AWS EC2.
- Collaborated with cross-functional teams in agile sprints, conducting code reviews and refining models based on stakeholder feedback.

Research Assistant, *Foster School of Business, UW*, Seattle, WA

Sep 2024 – Jun 2025

- Collected, validated, and cleaned 500,000+ rows of consumer behavior data from multiple sources (SQL databases, Google Analytics, survey platforms) to ensure formatting integrity and accuracy.
- Built ETL workflows in Python (Pandas, Airflow) to integrate audience engagement, campaign performance, and transaction datasets for predictive modeling.
- Developed Tableau dashboards and R Shiny apps to visualize KPIs for internal marketing teams, enabling a 20 percent improvement in campaign targeting efficiency.
- Performed A/B testing analysis and statistical modeling (R, SQL) to measure the impact of digital marketing strategies; co-authored a peer-reviewed paper on predictive analytics in e-commerce.

Data Analytics Intern, *Jammy*, Seattle, WA

Dec 2024 – Mar 2025

- Created SQL pipelines and automated ETL processes to process real-time user activity data for streaming analytics.
- Designed Tableau dashboards to monitor key growth and retention KPIs, used by executives for weekly decision-making.
- Improved data accuracy by 25 percent through automated validation scripts in Python and implementation of integrity checks at ingestion points.

Data Science Intern, *Impact Financial Advisors*, Seattle, WA

Jun 2024 – Aug 2024

- Developed predictive financial forecasting models using Python, TensorFlow, and scikit-learn; integrated market and client portfolio data from SQL databases.
- Built interactive dashboards in Tableau for tracking risk exposure, ROI, and client KPIs.
- Automated portfolio risk assessment workflows, reducing manual review time by 35 percent and ensuring compliance with data privacy standards (GDPR, CCPA).

Projects

Finsight: AI-Powered Financial Health Tool (In Progress)	2025
<ul style="list-style-type: none">• Building a full-stack app with React, Firebase (Auth, Firestore, Storage), and Python backend to create financial health report cards based on users' financial data.• Integrating real-time market APIs and Amplitude analytics to provide dynamic investment insights and track user behavior.• Implementing Stripe payments for subscription management and monetization.• Developing a mobile app using React Native for seamless cross-platform user experience.	

Options Pricing Model	2025
<ul style="list-style-type: none">• Developing Black-Scholes model with Monte Carlo simulations for options evaluation.• Visualizing portfolio insights using Python (Matplotlib, Seaborn) with plans to integrate interactive dashboards.	

Skills

Languages: Python, JavaScript (React, React Native), SQL, R, Java, C#, HTML, CSS
Frameworks and Tools: Firebase (Auth, Firestore, Storage), Tableau, R Shiny, AWS (EC2, S3), Airflow, Amplitude, Stripe, .NET, Git, Jira, Google Analytics, Meta Ads Manager
Data and Analytics: Data Collection and Validation, ETL, Data Cleaning, Statistical Analysis, A/B Testing, Predictive Modeling, Machine Learning (TensorFlow, PyTorch, scikit-learn), Data Visualization
Concepts: Mobile and Web Development, Full-Stack Engineering, Agile and Scrum Development, Unit Testing, Debugging, Cloud Services, Product Ownership, Rapid Iteration, User-Centered Design, Startup Environment Adaptability