#### Olivia Jardine

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# **EDUCATION**

# **University of Washington**

Seattle, WA

B.S. in Discrete Math and Algorithms, Minor in Business

Expected: June 2027

- Courses: Data Structures & Algorithms (Python & Java), Algorithmic Engineering (C++), Discrete Math, Statistics
- Organizations: I2 Neuroscience AI (member)

## **EXPERIENCE**

# **Founder & Software Developer**

Apr. 2025 - Present

Oraflamme – Collaboration with King County Information Technology (KCIT)

Seattle, WA

- Design and develop a secure extranet web application for the King County Hazardous Waste Management Program, supporting 90k+ residents and 1k+ businesses annually with regulatory compliance needs.
- Build comprehensive system architecture using C#, ASP.NET Core MVC, Web API, and SQL Server with Forms Authentication implementing role-based access control and secure data management protocols.
- Integrate symmetric key encryption algorithms for secure handling and storage of sensitive environmental data, business information, and personally identifiable information throughout the application lifecycle.
- Collaborate extensively with KCIT employees to ensure full compliance with public-sector security standards, implementing data retention policies, access control mechanisms, and legal protocols for government data handling.

## PERSONAL PROJECTS

Smart Shoplifter Detection System | FastAPI, YOLOv8, OpenCV, PostgreSQL, Docker

Link

- Architected real-time computer vision system for behavioral anomaly detection, processing 38.2GB UCF Anomaly
  Detection dataset with 99.5% uptime and automatic recovery within 60 seconds.
- Built end-to-end ML pipeline with Random Forest classifier and optimized detection thresholds by 22-33%, improving sensitivity while maintaining 0.30 confidence score, implemented comprehensive performance tracking across 7 key metrics including detection latency and confidence scoring.
- Developed production dashboard with real-time monitoring processing 30+ FPS at 1080p, achieving <200ms endto-end latency with historical data visualization and system health analytics for concurrent video stream processing.

Node Flow | TypeScript, Tailwind CSS, React, Vercel

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- Built an interactive tool to visualize 22+ essential data structures and algorithms, helping 120+ users better understand foundational CS concepts.
- Built with React, TypeScript, and Vite, optimizing for fast load times (under 2 seconds) and smooth SVG/D3.js animations.

# **TECHNICAL SKILLS**

Languages: Python, Java, C#, C++, JavaScript, TypeScript, HTML/CSS

Frameworks: .NET, Node.is, React, Tailwind CSS

Developer Tools: Azure, SQL Server, PostgreSQL, Docker, Git, Vite, VS Code, PyCharm, Tableau

Libraries: Pandas, NumPy, Matplotlib, Scikit-learn

## ADDITIONAL EXPERIENCE

**Business Owner** | 9-Lives Thrift

May 2024 - June 2025

- Managed a 5.0-star vintage e-commerce shop, sourcing 150+ unique items monthly and developing automated
   Tableau dashboards and tools that boosted social engagement by 60% and improved inventory accuracy.
- Used sales data to identify top-performing categories and focus sourcing efforts

**Business Owner** | Nexora Creations

Jul. 2020 – Sept. 2022

 Launched and managed a jewelry and crafts business, maintaining a 5.0-star rating and fulfilling 300+ orders; utilized Excel for inventory management, sales tracking, and financial forecasting, leveraging data insights to drive 30% YoY growth and increase monthly web traffic by 50%.