

# Husam Alshehadat

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## WORK EXPERIENCE

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### Natera

Apr. 2022 – Present

#### Quality Analyst

San Carlos, CA

- Architected automated monitoring system using SQL/Snowflake and Power BI, collaborating with lab teams to transform manual Excel tracking into real-time dashboards, reducing daily samples lookup time from 30 to 10 minutes
- Designed and implemented cross-functional KPI dashboards tracking critical metrics including turnaround times, shipping efficiency, and insurance denial rates across 12+ integrated datasets
- Built automated quality control workflows in Snowflake, working closely with compliance team to ensure HIPAA-compliant monitoring across 3 facilities
- Contributed to monthly quality reviews by providing data-driven insights on insurance claim patterns, helping team identify processing bottlenecks

### Natera

Feb. 2023 – Mar. 2023

#### Quality Control Specialist

San Carlos, CA

- Led complex genetic testing QC process for 1000+ samples weekly, maintaining 99.9% accuracy rate across multiple laboratory facilities
- Reduced case resolution time by 40% through optimized Jira workflow implementation and cross-departmental coordination

### Natera

Sep. 2022 – Jan. 2023

#### Data Entry Specialist

San Carlos, CA

- Consistently ranked as top performer, processing 120+ samples daily (70% above average) while maintaining 99.9% accuracy in HIPAA-compliant environment
- Managed end-to-end BSL-2 lab specimen accessioning including verification, documentation, and biological sample handling

### Zuhly Technologies

Oct. 2020 – Sep. 2022

#### Freelance Data Engineer

Remote

- Built company's first web scraping pipeline using Python and Playwright, storing data in MongoDB Atlas for scalable access
- Developed automated data cleaning workflows using Pandas, improving data quality for machine learning teams
- Designed modular data extraction system with MongoDB integration, allowing non-technical teams to easily query and add new data sources

## PROJECTS

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### WebTalk | Python, OpenAI API, Playwright, Async

[GitHub](#)

- Built autonomous web assistant combining GPT-4 with Playwright for intelligent form completion and navigation
- Engineered secure credential management system using async Python for scalable authentication handling
- Designed plugin-based architecture enabling rapid integration of new websites and use cases

### Twinkling | Python, Neo4j, RAG, Social Media APIs

[GitHub](#)

- Developed automated content distribution system using RAG pipeline with Neo4j knowledge graph
- Implemented parallel processing for embedding generation and vector similarity search
- Created modular API integrations for Twitter/X and Bluesky with configurable posting schedules

## AWARDS & ACHIEVEMENTS

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**International Collegiate Programming Contest (ICPC)** - National Finalist — Advanced from Regional Rounds (2021)

**Vertical Specific AI Agents Hackathon** - Best SambaNova AI Implementation Award (2024)

## TECHNICAL SKILLS

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**Technical:** Python, SQL, C++, Bash, Git, Docker, Linux, Arduino

**Data & AI:** Snowflake, Neo4j, Power BI, ETL, OpenAI API, GenAI, PyTorch, RAG

**Automation:** Playwright, Selenium, BeautifulSoup, Web Scraping, Process Automation, KPI Development