DAVID CUI

cuidavid02@gmail.com | Github | LinkedIn | davidcui.net | (617) 866-9522

EDUCATION

Northeastern University, Khoury College of Computer Sciences   Boston, MA
B.S. in Computer Science and Economics   *Sep 2021 - Dec 2024*
- **GPA**: 3.7/4.0, Dean's List

PROFESSIONAL EXPERIENCE

Starday Foods (Tech-enabled CPG Startup, Series A funded)   Remote
Software Engineer   *Sep 2024 - Present*
- Built an automated data pipeline with AWS Lambda, SQS, and Glue to process TikTok hashtag data, storing results in S3 and delivering weekly summaries to Snowflake
- Developed optimized SQL queries in Snowflake's dashboard system to build interactive charts and graphs that enable stakeholders to effortlessly visualize TikTok hashtag trends
- Redesigned and automated an AWS product database pipeline using S3, Lambda, and Glue to ingest, transform, and load retailer product data into structured Snowflake tables

Software Engineer, Intern   *July 2024 - Aug 2024*
- Optimized access to Meta Llama 3.1 and Claude 3.5 via AWS Bedrock and SageMaker, processing 100,000+ queries through efficient chatbot wrappers and seamless user interactions
- Developed custom APIs and AWS Lambda functions to analyze 100,000+ product images and descriptions, automating attribute extraction to deliver insights and cut manual effort by over 500%.
- Engineered an automated data pipeline using AWS S3 and Lambda to link 10,000+ purchase records and survey insights to CDP profiles, enabling seamless integration and enhancing analytics precision

Junior Software Engineer, Co-op   *Feb 2023 - Dec 2023*
- Designed and managed a scalable AWS data platform to ingest and process 1M+ TikTok videos daily, transforming JSON into structured tables using S3, Glue, Athena, and Lake Formation for seamless analysis
- Built a product database by web scraping data from over 100,000 products across major retailers using Octoparse, integrating structured tables into Snowflake
- Developed a Python ML pipeline to detect fake survey responses by preprocessing categorical data and training models, classifying 3,000+ entries and significantly reducing manual review time for stakeholders

SKILLS & TECHNICAL TOOLS

- **Programming Languages**: Python, Java, SQL, R, C++, C, LaTex, Racket, HTML, Javascript, ACL2, Lean
- **Developer Tools:** AWS, Git, Snowflake, MySQL, Docker, Octoparse, REST APIs, Google Cloud Platform
- **Frameworks:** Pandas, Scikit-learn, NumPy, Matplotlib, JUnit, Pytest

PROJECTS

Automated Sports Betting Service   *July 2024 - Present*
- Built automated Discord bots to deliver long-term profitable EV sports bets to 100+ paying clients, while providing personalized insights to help them apply positive EV betting strategies.

Image Processor *(Java, JUnit, Swing)*   *July 2022*
- Developed an image processing application using Swing UI, allowing for complex image editing and transformations for different file formats

Marble Solitaire *(Java, JUnit)*   *June 2022*
- Developed a marble solitaire game in Java, applying model-view-controller (MVC) principles to create different game versions