Yanqiao Chen
Software Engineer

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EDUCATION

Allegheny College, *Meadville, PA*   **Graduation: May 2024**
Bachelor of Science Degree in **Computer Science**   **Major GPA: 3.84/4.00**
Minor: Economics   **Cumulative GPA: 3.72/4.00**
Graduation Honor**:** Magna Cum Laude

Senior Thesis
TreeNose: A Language-Independent Code Smell Detector

Best CS Comprehensive Senior Project Prize (Award for the best comp(s) in CS department)   **May 2024**

Distinguishments
Best CS Comprehensive Senior Project Prize (Award for the best comp(s) in CS department)   **May 2024**
Distinguished Alden Scholar (Dean's List for achieving a 3.8+ GPA)   **September 2022 - May 2024**
Trustee Scholarship(Awarded for academic excellence)   **September 2020 - May 2024**
Cupper Scholar(Fellowship for supporting collaborative researches in computer science department)   **May 2022**

Relevant Coursework

Data Abstraction	Software Engineering	Algorithms Analysis
Web Development	Artificial Intelligence	Data Analytics
Operating Systems	Optimization & Approximation	Calculus II

PROFESSIONAL EXPERIENCE

Operations Analyst, *GreenSky, LLC - Business Transformation team*   **September 2024 - Current**
- Data Analysis & Visualization
  - Aggregate raw Customer Service data from Snowflake using SQL and create KPI metrics like Customer Satisfaction and Servicing Level
  - Build Tableau dashboards by connecting to Snowflake-based SQL queries, enabling dynamic and intuitive metric insights for leaderships across teams
  - Conduct analysis of metric fluctuations by correlating key factors like seasonality, providing actionable insights
- LLM & NLP Model Design
  - Build LLM models with pretrained models bert-based-NER model to categorize call transcripts, fetch customer data like account numbers and predict the performances like satisfaction rate and second-contact possibility
  - Clean and pre-process transcript data extracted from S3 into tidy and model-friendly format
  - Train, fine-tune and test LLM models on AWS Sagemaker, achieving higher F-score and reliability
- Process Optimization & Automation
  - Build Python scripts on Rundeck to automate daily metric report delivery and ensure timely distribution
  - Leverage Data analysis libraries like Pandas and Numpy to streamline data ingestion from discrete sources like shared folder and emails to cloud platforms, especially Gitlab and Snowflake

- ○ Automate over 10 data analysis & report processes that previously performed manually, saving significant amount of employee hours and increasing accuracy
- Cross-team Collaboration
  - ○ Customer Communication: Work closely with cross-functional leaders, the end users of reports, to understand their needs, verify data sources, then deliver accurate and intuitive dashboards
  - ○ Knowledge Sharing: collaborate with colleagues across specialties to exchange knowledge, enhance team capabilities, and deliver business insights department-wide
  - ○ Documentation: Create metric dictionaries and add code comments to ensure cross-team knowledge alignment

Software Engineering Intern, *NetApp, Inc.*   **August 2023 - December 2023**
- Built a Node JS library to allow developers to programmatically interact with ONTAP PubSub messaging service
- Designed a React JS Web App that utilize the backend library to interact with ONTAP PubSub non-programmatically
- Implemented integration tests for the backend library by utilizing ONTAP REST API automation
- Collaborated in an Agile environment and attended weekly meetings to report work and attain feedback
- Presented findings and results to a team of 40 software engineers on-site in NetApp Pittsburgh office

URSCA Summer Research, *Allegheny College*   **May 2023 - July 2023**
- Developed a Python CLI tool for professors to fetch assignment grading data to analyze student performance
- Automated the procedure of fetching data discredited in different GitHub repositories by utilizing GitHub REST API
- Implemented Plotly, a data visualization library, to plot graphs on cleaned and filtered assignment dataset
- Enabled Computer Science department to analyze data from department-level executable exams in future semesters

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PROJECTS

TreeNose: Language-Independent Code Smell Detector   **September 2023 - April 2024**
- A JavaScript AST-based code smell detector that checks 5 kinds of code smells in 4 programming languages
- Parse software projects into language-independent code structures and queries to check the existence of code smells
- Support plug-in of new languages like Rust and Ruby with JSON configuration files to make TreeNose extensive

News Analyser   **May 2022**
- A Python tool that extracts keywords and hot topics from newspaper media associated with specific desired tokens
- Leveraged Beautiful Soup to perform a web scraper feature to fetch news from media like CNN through HTTP protocol
- Programmed a Machine Learning classifier using the Tf-idf vectorizer to analyze and summarize numerous articles

Gatorgrade   **January 2022 - April 2022**
- Developed, tested, troubleshot, and maintained Python automatic grading tool in collaboration with 20 peers along with Agile development methodology and joined group activities like sprint refinement meetings and code review
- Added a module for converting plain text messages into Markdown format to support the GitHub Action Summary
- Deployed and widely utilized across all the courses in the CS department at Allegheny College

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LEADERSHIP

Allegheny Chess Club President   **September 2023 - May 2024**
- Managed an organizational club of 30 students and 3 board members, approving events and assigning responsibilities
- Collaborated with board members to provide campus-wide events that generate 20+ students in attendance
- Worked with the student government to revise club constitution and plan the budget to support club activities

Technical Leader   **September 2022 - December 2023**
- Assisted 10-15 students weekly in completing class activities and assignments
- Held office hours to assist students' academic progress in introductory and intermediate computer science courses

Allegheny Gatorverse Hackathon Mentor   **April 2024**
- Advised 2 groups of undergraduate participants in designing architectures, software implementation and deployment
- Assisted judges to understand the key features of projects from each groups and provide assessments

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VOLUNTEERING

Alternative Spring Break with Living Land and Waters   **March 2023**
- Voluntarily spent spring break and traveled to Memphis to clean up the Mississippi River
- Attended the lecture about environment protection, and the importance of keeping the Mississippi River clean

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SKILLS

Programming Languages: Python, Java, JavaScript, SQL, HTML + CSS
Tools: Docker, Git, WebSocket, React, RESTful API, MySQL
Certifications: AWS Cloud Practitioner