Jason Lew

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EDUCATION

New Jersey Institute of Technology

Newark, NJ

Bachelor of Science in Computer Science, Double Minor in Applied Statistics and Business

Sept. 2021 - May 2025

- Albert Dorman Honors College Full Tuition Merit Scholarship
- Relevant Coursework: Data Structures and Algorithms, Linux Programming, Operating Systems, Introduction to Data Science, Programming Language Concepts
- GPA: 3.92/4.0

WORK EXPERIENCE

Software Engineering Intern - PerfectRec, Seattle, WA

May 2022 - Jun. 2023, Aug. 2023 - Present

- Implemented 3 major software development projects: laptop recommendation page, back and skip buttons, and product comparison tool using React, JavaScript and TypeScript, HTML, CSS and TailwindCSS, Next.js, and PostgresSQL.
- Applied artificial intelligence methodology to develop PerfectRec's laptop recommendation model using Pandas in Python (model NDCG = 0.578).
- Delivered 7,000+ lines of code to live site and data science repository to develop tools and features including ESLint pre-commit hook, application bundle size difference via GitHub Actions, automated UUID generation in product spreadsheets, and automated sitemap generation for SEO.

Software Engineering Intern - UPS, Parsippany, NJ

Jun. 2023 - Aug. 2023

- Overhauled legacy UPS Email Invoice (UEI) web application with a modern, mobile-friendly user interface supporting 50+ languages and regions using Angular, TypeScript, HTML, and CSS.
- Halved number of clicks for UEI's document filtering, improving usability for UEI's 2,700 monthly users.
- Resolved 300+ SonarQube issues in UEI's Spring Boot and Java REST API, enhancing security and code maintainability.
- Increased unit test coverage by 80% in UEI's Spring Boot and Java REST API to boost code reliability.

Undergraduate Research Assistant - New Jersey Institute of Technology, Newark, NJ

Feb. 2022 - Aug. 2022

- Assisted researchers and graduate students in exploring interactive data science.
- Computed statistics for a novel sequential triangle counting algorithm in Python to scale 1 million vertices.
- Accepted to IEEE HPEC 2023 GraphChallenge: <u>Triangle Counting Through Cover-Edges</u> (arXiv:2210.00389).

PROJECTS

DocuParse - JPMorgan Chase Code for Good Hackathon

- Constructed web application in 24 hours as a 6-person team, automating volunteer scheduling for events via scheduling algorithm for the American Council of the Blind using React, JavaScript, HTML, CSS, Flask, and Python.
- Reduced 3 hours of manual labor into seconds, and won against 5 competing projects.

Cervical Cancer Classification Machine Learning Model

- Classify cervical cancer diagnosis using dataset of 30+ risk factors and 800+ data points using Numpy, Pandas, Seaborn, Pyplot, and Imblearn in Python.
- Implement Logistic Regression model using SKLearn with 99%+ accuracy and visualize model statistics.

Programming Language Lexical Analyzer, Parser, and Interpreter

• Assemble lexical analyzer with 33 token types, top-down recursive descent parser, and interpreter for programming language with 19 grammar rules in C++.

TECHNICAL SKILLS

- Languages: Python, JavaScript, TypeScript, Java, SQL, C/C++, HTML/CSS
- Frameworks: React, Angular, Next.js, Gatsby, Spring Boot, TailwindCSS
- Developer Tools: Git, Bash, GitHub Actions