

Gyury Lee

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EDUCATION

University of Illinois Urbana-Champaign

May 2024

Bachelor of Science in Information Science, Minor in Computer Science | GPA: 3.60/4.00

Relevant Coursework

Computer Systems Engineering; Machine Learning; Algorithms and Models of Computation; Database Design; Biostatistics; Data Science; Data Management, Curation, and Reproducibility; Computer Architecture; Linear Algebra

PROFESSIONAL EXPERIENCE

Senior Lab Fellow

October 2022 – May 2024

Margolis Market Information Lab, Gies College of Business

Champaign, IL

- Independently designed, developed, and delivered a Python data science course for a collaborative learning environment using interactive tools like Jupyter notebook, Anaconda, and GUI-based Python development
- Managed lab logistics by overseeing personnel scheduling, resource allocation, and cross-departmental operations
- Taught a course and mentored 200+ fellows and students in advancing knowledge using finance, business, and computing applications such as Bloomberg, CAPIQ, and Python

Software Intern

July – August 2021

Bull & Bear Solutions

Chicago, IL

- Enhanced operational efficiency by streamlining expense/route tracking in Google Sheets using APIs and JavaScript, resulting in a 30% reduction in time spent on administrative tasks involving route management
- Optimized logistics by coordinating delivery schedules by communicating with clients and drivers, increasing on-time deliveries by 20%

Medical Intern

June – August 2021

Presence Medical Group

Lincolnwood, IL

- Assisted medical students in addressing diverse health concerns including vaccination hesitancy in over 300+ cases
- Developed strong communication and interpersonal skills through professional interactions with staff and patients
- Acquired in-depth knowledge of healthcare technologies such as medical software and data management systems

TECHNICAL PROJECTS

Linux-Like Kernel | C, x86 Assembly, GDB, GitLab, Docker

March – April 2024

- Engineered a Linux-like operating system with 3 engineers consisting of over 13,000 lines of code
- Built infrastructure for running multiple processes seamlessly using scheduling, syscalls, and interrupt handling
- Developed comprehensive device drivers for keyboard, terminal, real-time clock, and timer
- Implemented virtual memory and file system abstractions to ensure security and speed and accessibility

Supervised Learning for Mushroom Classification | Python, Git, Scikit-learn

February – March 2024

- Developed predictive models using Scikit-learn to identify mushroom toxicity, achieving a high Cohen's Kappa score of 0.9831 with a Random Forest model
- Employed preprocessing and feature engineering techniques on a complex dataset to ensure model integrity
- Applied machine learning algorithms including Decision Trees, Random Forests, and KNN algorithms, utilizing confusion matrices for detailed performance analysis.

ML Project Management | Python, Github, Markdown, Snakemake, Docker, Zenodo

December 2023

- Engineered an automated data analysis pipeline as a Snakemake workflow to develop a reproducible and scalable project structure, which managed dependencies and streamlined execution
- Implemented data profiling and automated fetching with integrity checks to enhance data quality

Elden Ring Speedrun Optimizer | C++, Python, Matplotlib, Make, Github, Visual Studio Code

May 2023

- Designed an application that innovates on classical pathfinding algorithms like Dijkstra's and Floyd-Warshall to compute optimal shortest path routes while adhering to critical game-specific sequence requirements
- Achieved route calculations accurate within 5% variance of world record times
- Overlayed shortest paths onto the Elden Ring map to create dynamic visual representations of the optimized routes

TECHNICAL SKILLS

Languages: C, C++, Python, Go, Kotlin, R, SQL, Assembly, Verilog, CSS/HTML, JavaScript

Frameworks: Django, React

Developer Tools: Git, AWS Cloudfront, Amazon S3, Docker, VS Code, PyCharm, Ubuntu, Bloomberg, CAPIQ

Libraries: pandas, NumPy, Matplotlib, Scikit-learn, SciPy, Seaborn