

KRISH PATEL

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EDUCATION

University of Illinois at Urbana-Champaign

Bachelor's in Computer Engineering

James Scholar Honor

Dean's List

Relevant Courses: Data Structures, Machine Learning, Operating system, Data Science, Probability, Artificial intelligence

May 2025

GPA: 3.78/4.00

SKILLS

Programming language: Python, C/C++, x86 (Assembly), Latex, Java

Skills: Deep learning, Natural Language Processing, Data visualization, Data mining, Data analysis, Machine learning

Tools: PyTorch, TensorFlow, Keras, Linux, Github, SQL, Wireshark, MongoDB, Scikit-Learn, Regex, CI/CD, Docker

EXPERIENCES

NeoSOFT Technologies, *Machine learning Intern*

June 2023 - August 2023

- Developed a NLP deep learning API for resume parsing, training with 1400+ resumes with an accuracy rate of 90%
- Scraped 1000+ job listings using BeautifulSoup and Selenium, storing it within a MongoDB database for resume analytics
- Designed skill extraction script using Regex pattern matching, resulting in a comprehensive dataset of over 17,300 skills

UIUC Mini-Crowd Research, *Research Assistant (Darko Marinov)*

June 2023 - August 2023

- Implemented a Continuous Integration (CI) workflow on GitHub using Maven to identify and resolve over 15 flaky bugs
- Reproduced and documented more than 20 bugs from the bugsinPy GitHub repository on the Linux Operating system
- Delivered PowerPoint presentations outlining research ideas and findings, promoting collaboration among team members

University of Illinois CS Department, *Course Assistant - Discrete Math*

January 2023 - June 2023

- Led interactive tutorials and office hours, effectively communicating with students in mastering fundamental concepts
- Communicated and simplified complex topics such as set theory, proofs, recursion, and finite state machines to students

Illini Electric Vehicle Concept, *Autonomous Team*

August 2022 - December 2022

- Optimized acceleration and braking on turns for the race car by mapping the race track using PyTorch and OpenCV
- Detected obstacles and mapped race track using OpenCV, enhancing safety and decision-making in autonomous driving

PROJECTS

Movie Recommendation AI, *Developer*

[GitHub Link](#)

- Implemented movie-review sentiment analysis using Naive Bayes, accurately classifying reviews with a rate of 92%
- Utilized bag of words, uni/bigram models with Laplace smoothing for training, mitigating underflow and overfitting risks
- Experimented with preprocessing by stemming and removing stop words using nltk to reduce the false positive by 6%

Product Web Scraping and analysis, *Developer*

[GitHub Link](#)

- Extracted URL, name, price, reviews, and number of reviews using BeautifulSoup, scraping 400+ data entries for product
- Estimated product price by plotting price, reviews, and review count to analyze the selling price for the desired product
- Established robust error handling mechanisms using the request and time libraries to effectively manage HTTP errors

Amazon Product Data Analysis, *Project Lead*

[GitHub Link](#)

- Collaborated in a team to apply the C++ Page Rank algorithm, calculating product popularity for product ranking
- Developed Strongly Connected Components algorithm to analyze sets of co-purchased products in C++
- Applied the BFS algorithm to calculate link-tree distances between 260,000 products, stored in an adjacency list

Data Visualization Tool, *Developer*

[GitHub Link](#)

- Designed a Python tool to dynamically generate interactive 2D/3D graphs, improving data visualization capabilities
- Optimized data handling, cleaned data and visualization with Pandas, allowing users to choose axes for graphs
- Integrated Plotly for in-browser graph rendering and user-friendly screenshot saving, enhancing streamlined data analysis

Missile Command: A Text-Mode Game, *Developer*

[GitHub Link](#)

- Designed a text-mode version of the game in x86 assembly as an extension to the Linux real-time clock (RTC) driver
- Developed five I/O control functions to provide an interface between the kernel and user-space components of the game
- Engineered a tasklet to compute location and validity of the missile in the linked list and redraw the bases with crosshair