Declan Kneita

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Chicago, IL

EDUCATION

Northwestern University, Evanston, Illinois
Bachelor of Science in *Computer Science,* Minor in *Data Science and Engineering*　　　　　　**Anticipated 6/25**
Cumulative GPA: **3.73/4.00**
Major GPA: **4.00/4.00**
Relevant Courses: Deep Learning, Machine Learning, Computational Linguistics, Intro to Artificial Intelligence, Data Structures and Algorithms, Fundamentals of Computer Programming 1/1.5/2, Game Development, Calculus, Linear Algebra, Statistics

Oak Forest High School, Oak Forest, Illinois
Cumulative GPA: **4.00/4.00**
Awards: Bremen District Keeper of the Light Award, AP Scholar with Distinction, Illinois State Scholar, SAT: 1570

SKILLS

Python ● PyTorch ● C ● C++ ● Git ● Docker ● UNIX Shell ● MATLAB ● Google Workspace ● Microsoft Office

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RELEVANT EXPERIENCE/PROJECTS

Machine Learning Research Intern – **SONIC Research Group**, Evanston, IL　　　　　　**Sep 2023 – Present**
- Collaborate within a team of peers and research faculty working on NASA funded natural language processing research.
- Fine-tune BERT models for improved sentence classification and sentiment analysis capabilities.
- Applied research methods to analyze complex data, providing valuable insights that significantly influenced project direction and goals, ensuring alignment with the project's mission and objectives.

Software Engineering Intern – **Toyota**, Plano, TX　　　　　　**Jun 2023 – Sep 2023**
- Engineered Python-based secret scanning tool, utilizing Docker and Gitleaks, to uncover 100,000+ compromised credentials across 7,000 Toyota GitHub repositories.
- Led data security initiative, identifying public data leak of 6,000+ customer records and collaborated across teams to swiftly address the breach and enhance data protection.
- Assisted in deployment of AWS-hosted scanning tool, ensuring ongoing security with monthly automated secret scans of Toyota's GitHub repositories.
- Actively participated in daily-standups, sprint planning and reviews, and backlog grooming sessions as member of a SCRUM team that leveraged Jira for seamless communication and efficient task management.

Undergraduate Teaching Assistant – **Northwestern University**, Evanston, IL　　　　　　**Aug 2022 – Present**
- Led daily office hours to aid 200+ students enrolled in Machine Learning and Intro to Programming.
- Monitored student question forum and answered questions pertaining to C, Python, OOP, and Machine Learning.
- Contributed to code grading and feedback processes, facilitating student skill improvement.

Music Artist Lyric Embeddings Project – **Python, PyTorch, BERT**　　　　　　**Jun 2023**
- Gathered and preprocessed song lyric dataset containing 20,000+ songs by web-scraping, overcoming data constraints and format challenges.
- Utilized the BERT-Base-Uncased model to extract artist embeddings from lyrics, employing advanced tokenization and layer averaging techniques, resulting in meaningful representations of artists' lyrical styles.
- Applied K-means clustering to artist embeddings and conducted qualitative analysis to identify subtle artist groupings within clusters and language-specific patterns, showing classification potential of lyric embedding clustering.