

# BEN VAN SLEEN

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## Education

**Vanderbilt University**, School of Engineering

Nashville, TN

*M.S. Computer Science; B.E. Electrical & Computer Engineering, Economics*

May 2023

**Undergraduate GPA:** 3.962/4.0 | **Graduate GPA:** 4.0/4.0

**Technologies:** Python, Rust, Javascript, React, Java, Clojure, C++, PyTorch, Docker, Kubernetes, ZooKeeper

**Coursework:** Deep Learning, NLP in Healthcare, Distributed Systems, Web-Based System Architecture

## Professional Experience

**McKinsey & Company**, Washington, D.C.

June 2022 – Aug 2022, Aug 2023 – Present

*Quality Assurance Lead, Lilli*

*Sept 2023 – Dec 2023*

- Identified and triaged bugs across stack for RAG-based generative AI search tool supporting 10,000+ users; defined acceptance tests and coordinated across 100+ person team to ship features and fixes on schedule
- Drastically improved developer velocity by automating existing process to reduce integration test time 66%
- Designed, scoped, and delivered backend implementation of feature suggesting follow-up queries to help answer questions users did not know to ask – driving longer chat threads and increasing overall satisfaction
- Introduced neural network compilation step to reduce average inference time by 40% and worst-case time 99.2% under heavy loads

*Digital Business Analyst, Pricing Transformation*

*Jan 2024 – June 2024*

- Used historical quoting and invoicing data to identify, design, and begin implementation of 3 initiatives to improve quality of earnings; on track to realize \$60M of additional gross profit
- Developed Tableau data flows and dashboards to enable real-time margin visibility and impact tracking

*Summer Business Analyst, Cost Transformation*

*June 2022 – Aug 2022*

- Collaborated with client-side counterparts to design, size, and sustainably implement 30+ initiatives mitigating pain points in crude, renewable, and product transport processes

**Vanderbilt Institute for Software Integrated Systems**, Nashville, TN

June 2023 – Aug 2023

- Designed and implemented Modelica-based systems engineering tool to allow LLMs to autonomously generate, debug, and compose components
- Presented research on AI and LLM safety to 2023 National Science Foundation Munich PIRE conference

**Vanderbilt Network and Data Science Lab**, Nashville, TN

Dec 2020 – May 2022

- Evaluated graduate students in DS 5720: Social Network Analysis using PyTorch-Geometric
- Built transformer-based time-series network to detect patterns indicating depression within the Autism community

**Emerald Coast Yachts**, Pensacola Beach, FL

Mar 2019 – Aug 2020

- Taught multi-day, live-aboard sailing classes certifying students to charter vessels

## Academic Projects

**Simply Sickle / Senior Design Project**, Vanderbilt Locke Biosensing Lab

Aug 2022 – May 2023

- Developed computer vision algorithm to identify percentage of sickled hemoglobin using OpenCV, SciKit-Learn, Raspberry Pi
- Achieved better than 98% accuracy in differentiating carrier, non-carrier, and diseased samples

**Managing Director**, Vanderbilt Students Consulting for Nonprofit Organizations

Sept 2019 – May 2023

- Led team delivering real-time PowerBI dashboard to unify metrics across 8 separate United Way projects
- Designed lobbying strategy for Special Olympics Tennessee to be funded in state budget
- Built Google Cloud app to identify priority schools likely to benefit from Special Olympics program

## Distinctions & Interests

**Distinctions:** Tau Beta Pi, Magna Cum Laude, Walter C. Criley Interdisciplinary Prize, National Merit Scholar

**Interests:** Talking SEC football, Zac Brown Band, playing lacrosse, fantasy football, teaching sailing, Guix OS