

Hayden Kim

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EDUCATION

University of Illinois at Urbana-Champaign

December 2024 Graduation

Bachelor of Science in Mathematics & Computer Science

Current GPA: 3.86/4.00 (Dean's List Spring 2022, Fall 2022, Spring 2023, Spring 2024)

Relevant Coursework: Algorithms & Data Structures, Database Systems, Artificial Intelligence, System Programming, Numerical Analysis, Nonlinear Programming, Computer Architecture, Graph Theory

SKILLS

Languages/Frameworks: SQL, Java, Python, HTML, C++, Scala, Spring Boot, Spring Framework, Flask

Platforms/Technologies: Apache Spark, Machine Learning, Microsoft Azure, Google Cloud Platform, GitHub Actions, MongoDB

Project Management Methodologies: Agile/Scrum

WORK EXPERIENCES

UnitedHealth Group/ Optum

June 2023 – August 2023

Technology Development Program Intern

June 2024 – August 2024

- Implemented **modern framework integration** in legacy company application to assist in **web framework migration**
- Achieved **significant improvement** in application's **security** through web framework migration
- Assisted in developing algorithms for **custom streaming data tools** to **reduce the complexity** of streaming data for Optum developers
- Enforced **thorough testing and documentation methodologies** to increase efficiency during the project's testing phase and expedite the understanding of the project
- Utilized **various machine learning algorithms and data processing methods** for advisor application to increase application's optimization and simplify client experience
- Reduced monthly cost** of merging company data through streaming by about **66%**

PROJECTS

My Job App Tracker

August 2024 – August 2024

Full-Stack Developer

- Designed **full stack application** that simplifies user experience for viewing job applications user applied to
- Utilized **Postman** to test **MongoDB and Spring Boot backend** API functionality used to store job application data
- Implemented **React frontend** to provide user access to **appending and viewing job applications** with backend API interaction

League of Legends Metrics Viewer

January 2024 – May 2024

Full-Stack Developer

- Developed a **cloud-based database application** in a team of four that assists users to identify which League of Legends Champion to choose using data from the project's database as well as view previous match data
- Overhauled "dirty" data to ensure smooth data transfer from **Google Cloud Platform** to the application
- Conducted **runtime analysis** on **advanced queries** to pinpoint areas in queries that can be updated to **reduce query runtime**

PrairieLearn++

August 2022 – December 2022

Full-Stack Developer

- Designed a **web application** for my college's online learning platform in a team of four that offers users an easier time in **identifying assignment due dates**
- Carried out **HTML front-end UI** to display available assignment due dates and alert users of upcoming deadlines
- Implemented **Python-backed web service** to better represent the insights from the scraped data

LEADERSHIP & INVOLVEMENTS

SASE (Society of Asian Scientists and Engineers)

September 2023 – Present

SASE Tech Intern/Outreach Chair/Executive Board

- Coordinated **LeetCode and LinkedIn workshops** to **prepare undergraduates** seeking tech-related careers
- Network with student organization representatives to establish **future collaborations** with other organizations
- Increased **member involvement** within organization by about **20%**

University of Illinois at Urbana-Champaign

January 2023 – May 2024

Statistics 400 Course Assistant

- Assisted high level statistics course professor in hosting office hours to tutor students
- Proctored exams of class size of at least 50 students

Illini Solar Car

September 2022 – Present

Strategy/Telemetry Member

- Perform **simulations of solar car drives** to devise the best racing strategy
- Connect with different Illini Solar Car sub teams to **optimize accuracy of solar car race simulation**
- Develop/update **simulation program** to improve solar car team's racing strategies and UI readability

AWARDS & CERTIFICATIONS

PCAP – Certified Associate in Python Programming

July 2022