Kevin Wang

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Education

University of Michigan, Ann Arbor Expected May 2024

B.S.E. in Computer Science, Minors in Mathematics and Statistics *GPA: 3.73 | Major GPA: 3.8*

- **Courses:** Operating Systems, Networks, Web Systems, Machine Learning, Real Analysis, Probability, Statistics
- **Current:** Database Systems, Compiler Construction, Human-Centered Software Design

Employment

Raytheon Technologies | *Software Engineer Intern* May 2023 – Aug 2023

- Created a tool using C to efficiently monitor and report server failures, providing enhanced operational insights.
- Improved accessibility by integrating IPMI remote execution and eliminating the need for an internet connection.
- Designed algorithm to identify server failures and handle invalid data, resulting in 24% fewer false positives.
- Leveraged knowledge in C, RHEL8 Linux, Git, Bash, Vim.

Optum | *Product Manager Intern* June 2022 – Aug 2022

- Spearheaded an initiative to revamp the Digital Identity user interface, elevating user experience for a user base of over 30,000 individuals and resulting in improved application scalability, usability, and overall user satisfaction.
- Orchestrated the timely delivery of the product, managed budget constraints, and achieved a cost saving of $400,000
- Collaborated with engineers, managers, and stakeholders to ensure alignment across key decision-makers.

University of Michigan | *Research Assistant* Nov. 2021 – June 2022

- Researched Volterra signatures and their applications to deep learning and convolutional neural networks.
- Designed and implemented efficient algorithms to compute Volterra signatures, reducing computational costs by 92%
- Created Python scripts to source, clean, and transform data resulting in a streamlined research workflow
- Responsible for calculating Volterra signatures on discrete data sets and assisting with model training.

Projects

Premier League Dashboard | *FastAPI, React, PostgreSQL, TailwindCSS, Python, JavaScript*

- Created a dashboard to display upcoming Premier League matches and important statistics.
- Stored team data using PostgreSQL and created a REST API using FastAPI to fetch match data.

Predicting Player Skill | *React, Riot API, TailwindCSS, Python, JavaScript*

- Developed a tool to analyze and predict skill ratings, providing insight for strategic gameplay.
- Deployed asynchronous JavaScript to gather player data and TailwindCSS to create a lightweight application.

Predicting the Champions League | *Python, NumPy, Pandas, scikit-learn*

- Architected a statistical model to predict the outcome of the Champions League final.
- Scraped data from 100+ games, implemented 6-fold cross-validation, and used regression to maximize accuracy.

Ethernet Router | *C*

- Implemented a functional router using C to successfully route Ethernet packets in Mininet.
- Enabled packet forwarding, ICMP message handling, and checksum verification to ensure seamless data transmission

Systems Projects | *C, C++*

- Operating Systems: Created a thread library, virtual memory manager, and network file system.
- Computer Organization: Implemented an LC-2K assembler and linker, pipelined datapath, and cache simulator.

Leadership & Awards

- **Quantitative Investment Society:** Club member. Developed projects and interests in quantitative finance.
- **Michigan Hackers:** Machine learning team lead. Organized computer vision projects in a club of >100 members.
- **Regent's Merit Scholarship (UofM):** Scholarship awarded to the top 2% of in-state students.
- **ACSL Finalist (2020):** Selected out of >5,500 participants to compete in the ACSL HS Programming Finals.
- **First Place, EMU (2019):** Placed 1st out of >40 teams in the EMU HS programming competition.
- **USACO Silver (2018):** Competed in the silver division of the USACO monthly coding competitions.

Skills

Programming: C, C++, Python, Java, JavaScript, SQL **Tools:** Git, Linux