

Kevin Wang

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EDUCATION

University of Michigan

Ann Arbor, MI

B.S.E. in Computer Science. Minors in Mathematics and Statistics

August 2020 – May 2024

- **Major GPA:** 3.9/4.0; University Honors, Dean's List, James B. Angell Scholar
- **Courses:** Operating Systems, Computer Networks, Web Systems, Machine Learning, Real Analysis, Linear Algebra
- **Current:** Database Management Systems, Compiler Construction, Human-Centered Software Design

EXPERIENCE

Raytheon Technologies

May 2023 – Aug. 2023

Software Engineer Intern

Middletown, RI

- Developed support software in C for deployed DoD Linux systems as part of the Physical Sciences & Systems team.
- Led development of a performance monitoring tool to provide insights on server operations for 1 contract client.
- Designed algorithms in C to detect server failures and handle invalid data, resulting in 24% fewer false positives.

Optum Healthcare

June 2022 – Aug. 2022

Product Manager Intern

Remote

- Assisted engineers in aggregating healthcare data of 250 million people as part of the Digital Identity team.
- Led a team of interns to overhaul product documentation using MKDocs, generating \$400,000 in savings.
- Streamlined documentation for the data matching algorithm, increasing developer productivity by 27%.

University of Michigan

Nov. 2021 – May 2022

Research Assistant

Ann Arbor, MI

- Researched Volterra signatures and their applications to deep learning and convolutional neural networks.
- Designed high-performance algorithms to compute Volterra signatures, reducing computational costs by 92%.
- Assisted development of neural network models utilizing Volterra signatures as fully-connected layers.

PROJECTS

IG Database Clone | SQL

- Developed SQL database to store relations between Instagram users, users' photos, likes, photo tags, and followers.
- Used triggers to prevent data entries when users follow themselves and integrated database into React application.

MatchHub | FastAPI, React, PostgreSQL, TailwindCSS

- Created a dashboard using React to display upcoming Premier League matches and head-to-head statistics.
- Stored match data and user profiles using PostgreSQL and utilized JavaScript/TailwindCSS to create user watchlists

Static Router | C

- Built a static router using C to receive and forward Ethernet frames according to ICMP, ARP, and IP protocols.
- Implemented ICMP handling, ARP requests, and checksum verification to ensure proper data transmission.

Thread Library | C++

- Created a thread library in C++ for processes to manage the creation, lifetime, and destruction of threads.
- Provided synchronization through mutexes, condition variables, joins, and yields and scheduled threads via FIFO.

Pairs Trading | Python, NumPy, Pandas, Statsmodels, Matplotlib, Google Cloud Platform

- Architected trading infrastructure in Python including a data scraper, back-tester, and live paper-trader.
- Automated data scraping and paper-trading. Generated trading signals based on cointegration analysis.

ACTIVITIES & 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.

PROGRAMMING SKILLS

Languages: C/C++, Python, SQL

Technologies: Git, Linux