

EMPLOYMENT

Software Engineer, Intern	Raytheon Technologies	Summer 2023
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Bolt, Beranek, and Newman Inc.

- Implemented IPMI internal server application to monitor server sensors and performance.
- Developed and maintained documentation for application code, including technical specifications.
- Debugged software defects, resulting in significant improvements in application stability and performance.
- Leveraged knowledge in Git, RHEL8 Linux, programmed in C and Bash using Vim.

Product Manager, Intern	UnitedHealth Group	Summer 2022
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Optum Healthcare

- Led a four-member team to remodel Digital Identity UI, improving user experience for **50,000+ users**.
- Collaborated with cross-functional teams to gather and analyze requirements, resulting in the successful delivery of a new product feature within a tight deadline and **generating \$400,000 in savings**.
- Facilitated code reviews and provided feedback to improve code quality, maintainability, and readability.

Research Assistant	Dept. of Mathematics, University of Michigan	Fall 2021 – Spring 2022
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Volterra Signatures and CNNs

- Worked under the guidance of Dr. Qi Feng to research Volterra Signatures and their applications to ML.
- Conducted extensive research on Convolutional Neural Networks, rough path theory, and Volterra Signatures, resulting in the development of a new deep learning model for image classification tasks.
- Assisted in the development of machine learning infrastructure including data preprocessing pipelines, model training, and evaluation tools, resulting in improved efficiency of the research workflow.
- Leveraged knowledge in research, programmed in Python using VSCode and Jupyter Notebook, Git.

EDUCATION

Ann Arbor, MI	University of Michigan	Fall 2020 – May 2024
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- B.S.E. in Computer Science Engineering, May 2024. In-major GPA: 3.81.
- Minors in Mathematics and Statistics
- Graduate Coursework: Machine Learning; Statistical Inference; Probability Theory.
- Undergraduate Coursework: Operating Systems; Networks; Web Design; Data Structures & Algorithms; Comp. Organization; Reinforcement Learning; Theoretical Statistics; Statistical Computing; Real Analysis.

SOFTWARE PROJECTS

Personal website: www.kevinlw.com (for additional information and projects)

- **Instagram Clone** (2023). Class project to develop an Instagram clone with client-side dynamic pages and a REST API. Front-end was done in React, Javascript, HTML, and CSS. Back-end used Python, Flask, and SQL.
- **Volterra Signatures** (2022). Scientific tool to numerically solve Volterra Signatures. Python, Scipy, Numpy.
- **Pairs Trading** (2022). Systematic statistical arbitrage trading strategy with data scraper, backtester, and paper-trader. Python, Statsmodels, Pandas, Numpy, Google Cloud platform.

ADDITIONAL EXPERIENCE & AWARDS

- **QIS (UofM)**: Member of student run club of 20 members. Explored interests in quantitative finance.
- **Michigan Hackers (UofM)**: Machine Learning team lead. Mentored undergrad students in ML.
- **ACSL Finalist (2020)**: Selected out of >5,500 participants to compete in the ACSL HS Programming Finals.
- **First Place, EMU (2019)**: Team placed 1st out of roughly 100 contestants in the EMU HS coding competition.
- **USACO Silver (2018)**: Competed in the silver (3rd highest) division of the USACO monthly competitions.

Languages and Technologies

- (Proficient) C++; C; Python; Git; Bash; Unix (Familiar) Java; R; SQL; JavaScript; HTML; CSS; React; Flask; AWS