Kevin Wang

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Education

University of Michigan Expected Dec 2023
B.S.E. in Computer Science, Minors in Math and Stats *Major GPA: 3.8*
Courses: Operating Systems, Computer Networks, Web Systems, Machine Learning, Linear Algebra

Skills

Programming Languages: C/C++, Python, Java, JavaScript/TypeScript, SQL, HTML/CSS, LaTeX, R, Rust
Tools: Git/GitHub, Unix Shell, Linux, Ubuntu, x86, VS Code, Vim, Clang, Nasm, Amazon Web Services, GCP
Web Dev Tools: React, Node.js, Flask, Jinja, WordPress, Bootstrap, FastAPI, TailwindCSS
Python Libraries: Pandas, NumPy, Matplotlib, Statsmodels, Scikit-learn, PyTorch

Work Experience

Software Engineer, Intern | *Raytheon Technologies* May 2023 – Aug 2023
- Developed a robust tool using C to remotely monitor and report server failures across 50+ sensors
- Designed detection algorithm to identify server failures and handle invalid data, resulting in 24% fewer false positives
- Improved accessibility by integrating IPMI remote execution
- Collaborated with managers and engineers to specify project requirements

Product Manager, Intern | *UnitedHealth Group* June 2022 – Aug 2022
- Led initiative to overhaul product documentation using MKDocs and Github, generating $400,000/yr in savings.
- Streamlined documentation for the data matching algorithm, increasing developer productivity by 27%
- Presented progress and project impact to major shareholders in biweekly meetings.

Software Projects

Instagram Clone | *JavaScript, React, Python, Flask, HTML/CSS* Spring 2023
- Created an Instagram clone with dynamic pages (JavaScript/HTML/CSS) and a REST API (Python, Flask
- Incorporated infinite scrolling and double-click liking using React
- Build REST API using Python/Flask to support GET, POST, and DELETE requests

Machine Learning | *Python, NumPy, Pandas, Scikit-learn, PyTorch, Matplotlib* Fall 2022
- Implemented machine learning algorithms achieving >80% accuracy on various data sets (MNIST, Fashion, etc.)
- Algorithms included PCA, SVM, kernel methods, Gaussian Processes, E-M, regression, and more
- Scraped data, implemented 6-fold cross-validation, and used logistic regression to predict soccer games

Network File Server | *EECS 482 (Operating Systems)* Fall 2022
- Developed a network file server in C++ allowing users to create, write, read, and delete files and directories
- Handled concurrent requests from different clients using threads, mutexes, and condition variables
- Established communication between clients and server using socket programming and TCP

Leadership & Other Experience

Michigan Hackers | *Team Lead* Fall 2021 – Fall 2022
- Organized computer vision projects and hosted educational sessions for student-run club of 100+ members
- Collaborated with members to create a machine learning model to colorize gray-scale images

Research Assistant | *University of Michigan Dept. of Mathematics* Fall 2021 – Spring 2022
- Worked under the guidance of Qi Feng to research Volterra signatures and their applications to machine learning
- Designed and implemented efficient algorithms to compute Volterra signatures, reducing computational costs by 92%
- Created Python scripts to source, clean, and transform data thereby streamlining the research workflow

Programming Competitions | *Kalamazoo Area Math & Science Center* Fall 2017 – Spring 2020
- Won 1st place at EMU. Competed in the nationwide ACSL All-star contest. USACO silver competitor
- Improved skills in C++ and Java and gained knowledge in data structures, graph theory, and other algorithms
- Developed communication, problem solving, teamwork, creative thinking, and programming skills