Peter Kang

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Education

Purdue University West Lafayette, IN
Bachelor of Science in Computer Science *Expected May 2025*
- Data Structures & Algorithms, Operating Systems, Software Testing, Object Oriented Programming
- GPA: 3.98

Experience

Bloomberg | *New Grad Software Engineer* Sept. 2025
- Incoming Fall 2025

Siemens Digital Industries Software | *Software Engineering Intern* May 2024 – Aug 2024
- Developed a Python script to automate the creation of DFM commands, processing 10+ files to add appropriate cases, data structures, and functions, saving the EDA department 2-3 hours of manual work per usage
- Designed and developed a C++ application with an interactive GUI using Qt and Git that allows users to visualize and interact with their project's git development history, performing 30% faster than the previous tool and saving roughly $1000 per team in licensing during the department's transition from CVS to Git
- Refactored and enhanced the machine learning utilities library for the Python version shipped in their product, leveraging Dash and Plotly to develop an interactive interface for data manipulation and visualization

Purdue University | *Undergraduate Teaching Assistant* Aug 2023 – Present
- Conducted lab sessions for Java and Object Oriented Programming, Programming in C, and Systems Programming to foster the understanding of 100+ students through live coding demonstrations and examples
- Actively collaborated in meetings with professors and graduate teaching assistants to highlight issues and solutions to continuously improve the quality of the course

Hello World Hackathon | *Dev. Team Organizer* Feb 2023 – Dec 2023
- Cooperated with a team of 6 to develop the website (hwhack2023.com) for Purdue's Hello World Hackathon to display the important information to the 1000+ incoming freshman eligible to attend the hackathon
- Suggested and designed new features and designs to make the website more coherent to the retro theme crafted by the Design Team

Projects

Social Media | *React Native, Express, MongoDB, NodeJS, Google FireBase* Jan 2024 – May 2024
- Developed a full-stack mobile application to allow users to answer a daily prompt within their groups through photos to promote the development of social relationships
- Main functionalities include account creation/authentication, capturing photos and sharing, interactions with posts such as commenting and liking, social network management, prompt generation, and real time updates
- Worked in a software engineering team of 5 deploying agile development principles and thorough communication

MyShell | *C/C++, Lex, Yacc* Jan 2024 – May 2024
- Programmed a shell interpreter which combines behaviors from common shells including bash and csh
- Features include environment variable and wildcard expansion, background processes and forking/piping, signal handling and zombie processes, and subshells
- Utilized Lex and Yacc to develop the grammar of the shell through scanning and parsing to generate tokens

Tune In | *Python, Django, React, MySQL, Docker* June 2023 – Oct 2023
- Developed a full-stack web application that allows users to create and host rooms for listening to music together and send messages to the chatting room in real-time.
- Integrated the Spotify API into the application, allowing users to search for and access a vast library of songs and playlists directly within the platform, queue specific tracks, and manipulate the music playback

Technical Skills

Languages: Java, Python, C/C++, JavaScript, Assembly x86-64, SQL
Frameworks/Run: React, Node.js, Django, Qt, Express.js, Material-UI, Bootstrap
Developer Tools: Git/Github, Docker, Postman, VScode, IntelliJ, MongoDB, MySQL, Linux, QtCreator, Jira