KUSH K. PATEL

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EDUCATION

University of Michigan - School of Engineering   Ann Arbor, MI
Undergraduate Student - Bachelors of Engineering   Graduation: April 2026
- <u>Major:</u> Computer Science
- <u>Relevant Coursework:</u> Discrete Math, Programming and Intro Data Structures, Data Structures and Algorithms, Computer Organization, Computational Theory, Web Systems, Artificial Intelligence

EXPERIENCE

Ford Motor Company   Dearborn, MI
Data Engineering Intern   *May 2024-Present*
- Utilizing Qlik Sense, Alteryx, and SQL Dashboard to develop a Site IT Dashboard, while managing migration to SQL server/Oracle and maintenance using Ford Cloud Web and Dev/Ops Tools 9 (Java, Springboot, Git).

Michigan State University   East Lansing, MI
Undergraduate Teaching Assistant   *August 2023-December 2023*
- Utilized Python frameworks for computational problem-solving, incorporating matrix operations and finite difference schemes to craft partial differential equations.
- Integrated symbolic software, including Mathematica, to optimize symbolic algebra, calculus, numerical analysis, and data visualization within physics simulations.

Ford Motor Company   Dearborn, MI
Systems Engineering Intern   *May 2023-August 2023*
- Created Python scripts to construct a data pipeline through GCP allowing successful data migration of over 1.5TB of data from Ford's internal database to E2open software for Ford's Supply Chain Digitization team.
- Crafted SQL scripts to construct ticketing UI that retrieved and escalated performance requests from supplier
- Applied various testing tools such as Postman to develop comprehensive API and UI tests, successfully identifying and mitigating 50+ potential issues, enhancing system reliability by 35%.

Ford Motor Company   Dearborn, MI
Software Engineering Intern   *June 2022-August 2022*
- Developed Javascript scripts to construct/alter numerous Agile applications for Ford's Plan and Integrate team.
- Utilized various DevOps applications, including Grafana and Jenkins, to customize the UI presentation for vendors, incorporating graphs and pipelines improving project monitoring up to 15%.
- Altered numerous repositories to up-to-date build process employing a Git-centric approach with systematic branching, version tagging, and submodules for efficient dependency management.

PROJECTS

Financial Manager
- Implemented full stack financial application, leveraging Flask for processing financial/transactional operations and real-time balance updates while processing user's financial patterns.
- Constructed UI implementing HTML, allowing users to interact seamlessly with the front-end features to see real-time updates to account balance with access to financial activities for responsible spending.

WarCraft
- Developed a full-stack video game allowing users the possibility to create/expand an army of various personas, each built with various characteristics for battle against a skilled-based bot.
- Implemented a Qt front-end framework to allow players to visually control/build their army and a C++ backend to store data regarding the users current strength and constantly update the bots inventory proportionally to the users army.

Skills

Programming: C, C++, Python, SQL, Flask, HTML, CSS, Java, JavaScript, QT Framework, Mathematica, MATLAB, Springboot
Tools: PyCharm, Eclipse, Jupyter Notebook, Git, React, Agile (Scrum), GCP, VS Code, Jenkins, Rally, Grafana, Postman, Qlik Sense, Alteryx, SQL Dashboard