The following are my projects and experience to prove my skills as a Software Engineer:

Get Summary Holdings (GSH): Designed and developed GSH associated with ASU library to simplify operations for university-libraries participating in an archiving project. Implemented containerized multi-cloud deployments with CI/CD pipeline. By architecting GSH, I learned the importance of creating usable, useful software that solves real problems and brings delight to users.

Backend: <u>https://editiontracker.azurewebsites.net/</u> Frontend: <u>https://getsummaryholdings.com/</u> GSH Lite: <u>https://getsummaryholdings.com/lite</u>

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API Performance Monitor: <u>https://applicationmonitor.azurewebsites.net/</u> Deployed on MS Azure with CI/CD and MongoDB database on MongoDB Atlas. Secured with JWT.

BTurnerLaw: <u>https://bturnerlaw.vercel.app/</u> (M.S. capstone project), Developed and integrated critical functionalities and followed multi-cloud architecture by deploying the frontend on Vercel, backend on MS Azure as well as Render, and MongoDB database on MongoDB Atlas.

Technical Documentation: I created design documents with requirements, proposals, design specifications and software architecture diagrams for all my personal and academic projects at ASU and they are listed on my portfolio <u>https://jacobjose.live/</u> and <u>https://jacobjose.tech/</u>

Cloud Technologies: I used multi-cloud architecture for deploying academic and personal projects by incorporating cloud services like Vercel and Render along with mainstream cloud service providers to avoid the risk of huge bills. I observed that this approach offers better performance tuning along with scope for scalability. Moreover, I have implemented cloud operations and deployments in an enterprise environment at IBS, using MS Azure and AWS.

Enterprise Application Development: At IBS, I streamlined the development of a highly available application service for ANA Mileage Club loyalty program following enterprise standards. I made significant contributions in all phases of development from formulating the API logic to deployments on Azure cloud platform and final release of the REST based application having over 10,000 concurrent users. I worked on almost all levels of the stack, actively collaborated with cross functional teams, especially, performance team for diagnosing, troubleshooting, and resolving performance issues in complex enterprise environment and ensured thorough testing by Unit testing, integration testing and UAT by coordinating with the testing team.

Java, Python: As a Software Engineer, Java is my primary language. I learned Object Oriented Programming and started developing projects in Java during my undergraduate years. At IBS, I extensively used Java Spring Framework for application development. Later, I learned Python, used Java 8 at ASU for projects, and I am upgrading to Java 17. However, now, I am using Python for data analysis while working for EPICS at ASU.

DSA, OS: For Bachelors, I secured A grade (90%) for Data Structures and Algorithms, Object Oriented Programming and Operating Systems coursework. For Masters, I got A grade for SER 501 Advanced Data Structures and Algorithms and SER 502 Emerging Languages and Programming Paradigms. I have a strong grasp of Linux and Unix like OS and Shell Script by working on them creating virtual machines for projects. All these experiences helped me gain a good understanding of all phases of software development lifecycle.