

# HARSHIT JAIN

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## EDUCATION

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| <b>The Pennsylvania State University, University Park PA</b><br>Bachelor of Science in Computer Science   GPA: 3.7/4.0   Teaching Assistant @CodePath   Projects<br><b>Course:</b> Data Structures & Algorithms, Operating Systems, Object-Oriented Programming, Linear Programs, Database Systems<br><b>Certifications:</b> Microsoft: Azure AI Engineer Associate, Golang, AWS, Machine Learning, CodePath: Advanced SWE | Graduation: Dec 2024 |
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## TECHNICAL SKILLS

**Programming Languages:** Python, Golang (Go), Java, C#/C/C++, JavaScript/TypeScript, SQL, Shell scripting

**Frameworks:** Streamlit, Node.js, React.js, Next.js, LangChain, TensorFlow, GraphQL, RESTful APIs, Git

**Softwares:** AWS, GCP, Azure, PostgreSQL, Linux, Kubernetes, Docker, CI/CD (Jenkins, Cloud Build)

## WORK EXPERIENCE

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| <b>Software Engineer</b><br><b>Microsoft Corporation</b> (Azure Storage Team) [Azure, C#, Python, SQL/KQL] | Dec 2025 - Present<br>Seattle, WA |
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| <b>Software Engineer</b><br><b>Hughes Network Systems, LLC</b> (Aeronautical Team) [GCP, Golang, Node.js, Python, SQL] | Jan 2025 - Dec 2025<br>Washington, DC |
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- Built low-latency algorithm in Go, mapping flight paths to live weather grids to predict IFC-impact zones via spatial indexing
- Rewrote 4k+ LOC legacy (Python) monitoring system in Node.js to reduce latency and boost flight telemetry accuracy 95%
- Built flight reconciliation module (Python, Node.js) on scalable Kubernetes setup; reduced billing discrepancies 99% fleet-wide
- Architected automated GCS bucket archive solution; slashed SLA sync time from 20+ mins to <1 min to eliminate bottlenecks

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| <b>Software Engineer Intern</b><br><b>Materials Research Institute</b> (2DCC-MIP Team) [AWS, Python, Langchain, Pinecone, Next.js] | Aug 2024 - Dec 2024<br>University Park, PA |
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- Engineered an AI-powered video platform (Next.js, AWS) enabling 10+ U.S. institutes to streamline research video analysis
- Reduced video processing latency by 20% by optimizing GraphQL APIs and integrating DynamoDB for faster video retrieval
- Designed a secure authentication flow (AWS Cognito, API Gateway) to enable controlled CRUD access for research datasets
- Deployed a Python AI pipeline (LangChain, Pinecone) to enable intelligent search across 1k+ videos using vector embeddings

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| <b>Software Engineer Intern</b><br><b>Hughes Network Systems, LLC</b> (Aeronautical Team) [GCP, Python, SQL] | May 2024 - Aug 2024<br>Washington, DC |
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- Automated an AWS-to-BigQuery pipeline (Python) with strict row-level validation and reduced manual intervention by 95%
- Delivered SQL views and a Python-based analytics pipeline to power Delta Airlines' flight insights for 61k+ flights monthly
- Built a Python-based automated invoicing system (GCP) to drive multi-stream revenue capture for flight operations at scale

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| <b>Software Engineer Intern</b><br><b>Materials Research Institute</b> (2DCC-MIP Team) [AWS (AI), Python, Langchain, RAG, Next.js] | Jan 2024 - May 2024<br>University Park, PA |
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- Delivered an AI-driven video pipeline using AWS Lambda to automate transcription and tagging for 1,000+ hours of content
- Integrated LLMs (GPT-4, Claude 3) into a LangChain chatbot to enable RAG-based retrieval for 800+ queries monthly
- Built a video classification system with AWS Rekognition to automate speaker identification and cut manual tagging by 75%
- Developed an automated CI/CD pipeline for serverless research apps, ensuring rapid deployments and 99.9% uptime reliability

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| <b>Software Engineer Co-op</b><br><b>VIAVI Solutions Inc.</b> (PNT Team) [Python, C++] | May 2023 - Dec 2023<br>Washington, DC |
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- Built a distributed Python/C++ test framework for PNT products to cut testing time by 70% and speed up market delivery
- Redesigned a multi-tiered system to microservices architecture to resolve SCPI bottlenecks and boost response time by 40%
- Executed 35+ SCPI compliance tests to reduce product validation time from 2 weeks to 3 days for critical product releases

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| <b>Software Engineer Intern</b><br><b>Materials Research Institute</b> (2DCC-MIP Team) [Python, React.js, SQL] | May 2022 - May 2023<br>University Park, PA |
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- Built scalable React.js application with 50+ features and Jest test coverage to accelerate data analysis for 200+ scientists
- Integrated MS SQL Server to manage data from 900+ instruments and structured it across 18+ BCNF-normalized tables
- Built a Python-based ETL pipeline to automate data extraction, transform logs, and sync research data to a cloud warehouse

## PROJECTS

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| <b>JobAssistAI</b> - Microsoft Hackathon [Project Link] [Azure AI, RAG, Python] | Mar 2025 |
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- Engineered an end-to-end Azure solution with OpenAI, Document Intelligence, SpeechSDK, AI Search, and RAG models to automate report generation, transcription, insights storage, and AI-driven search for optimized job coach decision-making