

Shubham Shrivastava

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EDUCATION

Purdue University

West Lafayette, IN

B.Science in Computer Science and B.Science in Applied Mathematics

- Cumulative GPA: 3.73 | Dean's List & Semester Honors

EXPERIENCE

IBM

May 2024 – Present

Associate Software Engineer - Full Time

Durham, NC

- Developing the **on-prem UI** for OSO enabling customers to manage **cold storage solutions** in digital assets.
- Deployed the UI in a **Kubernetes** environment, using **Minikube** and **Ingress** for development and testing.
- Hosted the UI via **Nginx**, with secure **HTTPS** connections & used **Express.js** for dynamic content handling.
- Developing a solution to **broaden client scope** by reducing costs with **multi-tenancy support** for an on-prem hosted solution, enhancing **security and privacy** between tenants while enabling system resource sharing.

Sleep Number Corporation

Dec 2023 – May 2024

Software Engineer - Contract

Minneapolis, MN

- Migrated Sleep Number's payment provider from **Shift4** to **Adyen**, integrating with **Oracle Siebel CRM**.
- Developed **function apps** & **APIM policies** on **Azure** for POS functions like void and gift card transactions.
- Programmed in **Node.js** & **TypeScript** to ensure POS functions with reduced transaction failures.
- Managed data flow between Siebel and Adyen API using **Azure Core Function Tools**, enhancing efficiency.
- Performed functional and integration tests on all payment process endpoints to ensure robust performance.

IBM

May 2023 – Aug 2023

Software Engineering - Internship

Durham, NC

- Prototyped IBM OSO's in **React.js**, enhancing various personas workflow for offline crypto transaction approvals.
- Deployed the UI in **Docker** for dev experience, with **SSL certificate** handling and strict **TLS** for security.
- Refined the backend processes with **Python**, **Terraform**, & **Nginx**, optimizing document transfer across LPARs and boosting API efficiency.

PepsiCo

May 2022 – Aug 2022

Machine Learning Engineer - Internship

Plano, TX

- Analyzed feature stores to select an optimal **ML platform**, enhancing pattern recognition capabilities.
- Designed **MLOps network architecture** to integrate PepsiCo with Teradata Subscription.
- Programmed **Neal Analytics'** DevOps Workspace for autonomous code execution and deployment in PROD.

Fidelity Investments

Jan 2022 – Apr 2022

Software Engineering - Internship

Durham, NC

- Moved the pricing page from **ECS** to **EKS**, using **Nginx** for improved rehydration and maintenance processes.
- Upgraded Pricing Non-Prod web app from **Angular 11 to 13**, enhancing Angular CLI operations and validation.
- Implemented over 100 **Cucumber Integration Tests** with **Maven**, increasing system robustness and reliability.

RESEARCH

RCAC High-Performance Computing Lab | Dr. Wen-Wen Tung, Ph.D. & Erik Gough

Jan 2024 – Apr 2024

- Developed a new **R script** computing environment for RCAC labs using **Magpie** for **Hadoop management**.
- Streamlined **Hadoop setup** and cluster job management to enhance data-intensive analysis.
- Designed **Slurm** submission scripts for interactive **Hadoop/MR** jobs, showing proficiency in **HPC** solutions.

Deep Learning for Chaotic Weather Dynamics | Dr. Di Qi & Dr. Wen-Wen Tung Ph.D.

Jan 2023 – Apr 2024

- Developed **AI models** to analyze and forecast weather and climate patterns within the atmosphere-ocean system.
- Ran models on **RCAC GPU** clusters, refining multi-step forecasting accuracy via hyperparameter tuning.
- Implemented time series forecast on Lorenz systems with **PyTorch-based LSTM** and **Transformer** models.

TECHNICAL SKILLS

Languages: Python, JavaScript, Java, C/C++, TypeScript, SQL, Dart, R, HTML/CSS

Tools & Frameworks: AWS, Azure, Kubernetes, Docker, Node.js, React.js, Angular.js, Flutter, NumPy, PyTorch, OpenCV, Pandas, IBM Cloud, MongoDB, MySQL, Hadoop, Selenium, Puppeteer.js, Express.js, Linux