Tanya Jain

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Education

Virginia Tech — Blacksburg, VA
Master of Engineering in Computer Science - GPA: 3.56/4 — *2021 – Present*

Guru Gobind Singh Indraprastha University — New Delhi, India
Bachelor of Technology in Information Technology - GPA: 8.3/10 — *2016 – 2020*

Experience

Software Engineering Intern — June 2022 – August 2022
Stanley Black & Decker, Inc., New Britain, CT (Remote)

- Implemented a server-less backend service (Oxygen) that integrates 4 vendor applications for fetching lawn mower locations (DeWALT power tools) using AWS SAM (serverless application model).
- Created automated data ingestion pipelines for the Cumulocity IoT Dashboard, SurePath, NGBR and MQTT platforms using GraphQL, AWS DynamoDB and Amazon Kinesis Streams.
- Integrated Product API and Auth API for Oxygen using AWS Lambda instances, AWS TimeStream, and Amazon API Gateway for Product Device Data and Product Inventory services.
- Led a team of 10 co-interns for the Intern Innovation Challenge where we devised a design, prototyping, marketing and business strategy for a new product to be launched by Black + Decker.

Associate Software Engineer — February 2021 – July 2021
Accenture, Bengaluru, India

- Worked on server-less data warehousing solutions using the Google BigQuery service on the Google Cloud Platform for the UK's top Telecommunications company by migrating their legacy data systems to the cloud, serving as a Big Data Cloud Engineer on a multi-million dollar project.
- Employed Apache Kafka to create data pipelines for rendering latency and high throughput-oriented data streams, improving the existing metrics by 55%.
- Developed a Java API for the organization's internal software using the Hibernate framework for object-relationship mapping (ORM). Equipped Apache Maven as a build automation tool. Mapped various Unit tests and Integration tests using JUnit.
- Underwent training on numerous programming languages, databases and design patterns such as Java, UNIX, JavaScript, jQuery, Oracle SQL, Object-oriented Design and Agile Software Engineering practices.

Blockchain Researcher — August 2019 – September 2019
TowardsBlockchain, Gurugram, India

- Collaborated with stakeholders to conceptualize the inception of digital identity and security solutions using the Hyperledger Fabric Blockchain.
- Founded TBC Labs - a research and innovation wing working on providing credible insights across verticals in emerging technologies for this MIT Cambridge Innovation Center-incubated startup.
- Conducted market research and surveys involving 5000+ stakeholders and end-users to develop technically-nuanced reports and tech-market insights at scale for Blockchain product, business and revenue models.

Software Development Intern — June 2019 – July 2019
Oil and Natural Gas Corporation Ltd., New Delhi, India

- Developed a scalable web-application currently used by 35,000 employees at the organization for their in-house medical doctor's appointment scheduling system.
- Created the front-end using PHP wireframes, HTML/CSS, JavaScript and interacted with the database through the PHP-Oracle SQL integration. Equipped XAMPP for cross-platform local hosting during the initial software development process. Performed asynchronous data-rendering using AJAX and jQuery plug-in.
- Collaborated with UX Developer to refactor the existing web-portal for the Medical Panel system using Node.js and Django for the back-end, improving throughput by 110%.
- Contributed 20K+ lines of code to establish a codebase via Git, maintaining thorough CI/CD pipelines while being mindful of Agile software development methodologies.
- Presented on several occasions to audiences of 400-500 industry leaders and professionals on topics of emerging technologies as a student intern.

Blockchain Analyst — June 2018 – July 2018
WirePitch, Singapore (Remote)

- Designed and developed a 20-pager Whitepaper for an incentivized transactional-asset platform, based on the IBM Hyperledger Blockchain platform.
- Curated a technology and leadership-focused community of 10,000+ motivated industry professionals.

Projects

Stock Prediction Analysis | *Apache Kafka, MongoDB, PySpark ML, React, Node,js, Twitter API*

- Fetched Real-Time tweets using Kafka streams and Twitter API. Performed sentiment analysis of the tweets and based on this predicted Stock Market. Designed a stock prediction dashboard on React and backend Node.js.
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- Designed a stock prediction dashboard on React and backend Node.js.

Blockchain-enabled Voting System | *Ethereum, Solidity, Ganache, MetaMask, Web3.js, Truffle Suite, Node.js, NFTs*

- Engineered an e-Ballot on the Ethereum Blockchain where the voter can cast a vote with Smart Contracts using ETH gas transactions through the MetaMask wallet, with the Proof of Work Blockchain Consensus Mechanism.
- Conceptualised the front-end using Web3.js, HTML/CSS and Node.

Instance Segmentation and Classification using Masked Region-based Convolutional Neural Networks | *Keras, NumPy, Jupyter Notebook, Python, Masked Region-based Convolutional Neural Networks*

- Developed a Masked Region-based Convolutional Neural Network API to scan an image, detect the shape and to further classify it, with an accuracy of 74%.

ERC-20 Token Instance on the Ethereum Blockchain | *Ethereum, Solidity, Fungible Token*

- Published a functional Ethereum Request for Comment instance for asset tokenization - essentially my own cryptocurrency prototype.

Typing Tutor Game Java GUI | *Java, Java Abstract Window Toolkit (AWT), Graphics*

- Developed an interactive, graphical Java Abstract Window Toolkit game which lets the user practice their typing speed accuracy.

Technical Skills

Languages/Databases: Java, C/C++, Solidity, Oracle SQL, JavaScript, HTML/CSS, Python
Frameworks: Ethereum Blockchain, Node.js, JUnit, Spring Framework, React
Developer Tools: Git, Docker, Google Cloud Platform, VS Code, Visual Studio, PyCharm, IntelliJ, Eclipse
Libraries: NumPy, openZeppelin, Web3.js

Publication

Suman Mann, Tanya Jain and Aakash Vyas. **The Blockchain Revolution: Paradigm Shifts in Traditional Voting Practices.** International Journal of Computer Applications 176(37):36-42, July 2020.