SARTHAK AWASTHI

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EDUCATION

Drexel University | College of Computing & Informatics   Philadelphia PA

Bachelor of Science in Computer Science   **Graduation: 2024**

EXPERIENCE

Moberg Analytics | Software Engineer Intern   Philadelphia PA | **September 2022 – March 2023**

- Built and setup infrastructure automation and Flask environment around the open-source Vault software
- Automated IBM Cloud database management using Python and developed dynamic UI components in React
- Enhanced deployment and developer efficiency with BitBucket CI/CD pipelines, boosting release reliability

Bentley Systems | Software Engineer Intern   Philadelphia PA | **September 2021 – March 2022**

- Worked on a web application to enhance the efficiency of secure collaboration with external project clients
- Used React with TypeScript to create UI components as required and .NET to implement multiple REST APIs
- Assisted in internal localization and also migrated the scattered functionalities to a standalone application

CurveBeam LLC | Software Engineer Intern   Hatfield PA | **September 2020 – March 2021**

- Used OOP techniques to enhance efficiency of company's bone density measurement & visualization tool
- Built a dynamic report generator tool using Python & C for displaying 3D renderings of multiple bone scans
- Decreased runtime of tool by 30% through optimized search algorithm and more efficient data structures

PROJECTS

PETGNN

- Developed privacy-preserving federated full stack web app for generating multiple types of neural networks
- Implemented differential privacy, PSI & homomorphic encryption to protect datasets during training process
- Setup distributed systems, utilizing secure multi-party computation for scalability and better performance
- Qualified for the finals of TikTok TechJam and delivered a technical presentation at the TikTok headquarters

VirtuFlux

- Designed a system for dynamic data routing and processing across virtual nodes for resource management
- Developed basic algorithms for load balancing and fault tolerance, ensuring stability across distributed VMs
- Implemented initial data partitioning and replication strategy, focusing on consistency in distributed storage
- Setup and managed a virtualized environment using KVM/QEMU, enabling resource allocation for data flows

HummingBird

- Developed an autonomous drone safety app to enhance personal security for users during late night travels
- Implemented live-time tracking, detection, avoidance and path-seeking algorithms for drone automation
- Won the "Best Hack" at Drexel DragonHacks for creating full stack application using React Native and Flask

SKILLS & ACADEMICS

Programming Languages: Python, Java, C, Kotlin, Racket, JavaScript, TypeScript, C++

Frameworks: React / React Native, Flask, Express.js, .NET, Vue.js, Next.js, Cypress, Jest Testing, Spring Boot

Technologies: TensorFlow, AWS, PySyft, PyTorch, OpenCV, Git, Docker Containers, Kubernetes, SQL, Redis