

Ritik Ghanshani

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Education

Drexel University

BACHELOR OF SCIENCE IN COMPUTER SCIENCE, SUMMA CUM LAUDE
CONCENTRATIONS IN AI AND INTELLIGENT SYSTEMS

Philadelphia, PA

Graduation: September 2022

Cumulative GPA: 3.91

Professional Experience

Amazon Robotics

SOFTWARE DEVELOPMENT ENGINEER 1

North Reading, MA

October 2022 - Present

- Enhanced a robotics simulation platform to support performance testing for new components, ensuring high fidelity
- Automated testing of globally deployed robotics solutions, reducing manual testing time by 8 hours per week
- Developed a dashboard to automate report generation, saving 2+ hours per week for multiple teams
- Built a caching service using AWS Lambda, DynamoDB, SQS, and SNS with AWS CDK to improve dashboard performance
- Partnered with customers to gather requirements and worked with senior engineers to design the dashboard
- Mentored 3 co-op students, providing guidance and support on professional and technical development
- Supported and maintained team services, resolving issues as the on-call engineer to ensure uninterrupted operations

Moberg Analytics Inc.

DEVOPS LEAD AND CLOUD DEVELOPER

Philadelphia, PA

September 2021 - August 2022

- Developed CI/CD pipelines using Docker and IBM Cloud to automate testing and deployment to production environment
- Utilized Docker to interface multiple Flask applications for clinical trials with Celery, PostgreSQL DB, and AWS S3
- Pivoted existing applications to serverless deployments with minikube and knative to reduce costs of deployment
- Maintained a Kubernetes data-management application for 2 clinical trials on Neurocritical care with over 50 sites
- Refactored existing code base to modularize redundant code, improve maintainability and reduce coupling
- Reduced costs of deployment by 94% through serverless deployments with minikube and knative software

Bristol Myers Squibb Company

CLOUD DEVELOPER CO-OP

Hopewell, NJ

September 2020 - March 2021

- Built a front-end React application to assist 200 projects with generating JSON configurations for AWS deployment
- Refactored codebase for the prototype application to incorporate design patterns and ensure maintainability
- Created backend functionalities using AWS API Gateway and Lambda to provide context-based suggestions
- Hosted the single page application on AWS S3 using CloudFormation and CloudFront
- Published an npm package to support importable plug and play use of the application in multiple projects

Agilent Technologies

SOFTWARE ENGINEERING CO-OP

Wilmington, DE

September 2019 - March 2020

- Devised a dashboard to automate data pipelines and generate reports, saving the Production Manager 10 hours per week
- Managed 6-month dashboard-development process, handling various scope and timeline adjustments
- Incorporated KPI analytics for 10+ GB of logistics data into the dashboard using ASP.NET
- Generated optimal shipment dates by processing raw shipment data and purchase history in a SQL database

Math Resource Center at Drexel University

MATH TUTOR

Philadelphia, PA

April 2019 - June 2019

- Reviewed content in algebra, trigonometry, and calculus with students
- Helped students with the development of study skills
- Interacted with professors and other tutors to maximize learning efficiency

Culture CoLab, Ltd.

DIGITAL INNOVATION INTERN

Ranchi, India

February 2018 – April 2018

- Launched a Google Play Store App to connect thousands of rural students to Learn and Earn opportunities
- Implemented Authentication and Database for storing 5+ GB user data using Firebase
- Utilized Microsoft Azure and Tableau to determine high potential customers from the userbase
- Constructed an information portal using Raspberry Pi and Alexa to use voice recognition to welcome 300+ visitors a month

Projects

Digital Pathology | Senior Design Project

Philadelphia, PA

MLOPS LEAD ENGINEER AND PRODUCT OWNER

September 2021 - June 2022

- Improved the classification accuracy of severity of chronic sinusitis in digitized slides to 71% by remodeling an old project
- Utilized machine learning to predict chronic sinusitis severity based on high-density eosinophil regions
- Reduced image segmentation complexity by 95% by transitioning from single-CPU to multi-GPU processing
- Containerized the project on AWS SageMaker and S3, automating hyperparameter tuning and enhancing runtime speed

CIFAR-10-Classifer | Deep Learning Project

Philadelphia, PA

STUDENT

June 2021 - September 2021

- Trained various neural networks on the CIFAR-10 dataset to compare performance
- Developed a Deep Learning library from scratch to build ANN, MLP, GAN and CNN models

PawNet | Freshman Design Project

Philadelphia, PA

DEVELOPER AND UI/UX DESIGNER

January 2019 – June 2019

- Used Flutter and Agile methodology to develop the front end of a Pet Matching Mobile App
- Implemented Authentication and Database using Firebase
- Followed Agile methodology throughout the development of the product

Skills

Programming Languages	Python, Javascript, Java, Kotlin, MATLAB, SQL
Frameworks	React, Flask, NumPy, Pandas, .NET, Node.js, PyTorch, OpenCV, CDK
Technologies	PostgreSQL, Kubernetes, Docker, Git, GitHub Actions, Bitbucket Pipelines
Amazon Web Services	EC2, IAM, ECR, EFS, RDS, S3 Glacier, Lambda, CloudFormation, SageMaker Studio, API Gateway
Operating Systems	Linux, Windows, MacOS

Honors

2018-22 **Recipient**, Dean's List (8 out of 9 eligible quarters)

Drexel University

2018-22 **Recipient**, Dean's Scholarship

Drexel University

Activities

2020-22 **Member**, Algorithms & Data Structures Club

Drexel University

2020-22 **Member**, Artificial Intelligence Club

Drexel University

2019-20 **President**, Drexel Robotics Club

Drexel University