Danil Merinov

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EDUCATION

Drexel University   Philadelphia, PA
Bachelor of Science in Computer Science   September 2019 – June 2024
Bachelor of Science in Mechanical Engineering   Cumulative GPA: 3.39

EXPERIENCE

Drexel University   August 2024 – Present
Researcher   Philadelphia, PA
- Manage autonomous vehicle systems sensor data (LiDAR, RADAR, cameras, GPS), perform statistical modeling
- Develop machine learning and computer vision algorithms for object/anomaly detection and fault classification
- Conduct quantitative analyses using R and Python, generate reports for stakeholders, maintain project repository

Macquarie Group   September 2023 – April 2024
Software Engineer Intern   Philadelphia, PA
- Designed and developed team's homepage using Hugo, HTML, and CSS, deployed via Bitbucket
- Developed a password rotator using Python, configured load balancer with AWS CloudFormation, wrote unit tests
- Automated code scanning with Bash scripts for Fortify and BlackDuck, containerized using Docker
- Successfully migrated ETL application from Pandas to Polars, boosting processing speed by 500%

Meusic   December 2022 – July 2023
Software Engineer Intern   Philadelphia, PA
- Designed and developed application's authentication and user functionalities, created automated endpoint testing
- Utilized Django Channels to create a chat feature that works with both iOS and web-based applications
- Containerized, deployed, and maintained an application using a reverse proxy, MySQL, and Docker

Drexel University   June 2022 – September 2022
Undergraduate Researcher   Philadelphia, PA
- Collaborated on 10kV/60Hz modular transformer development and testing, studied electric field impact on drones
- Utilized MATLAB and Pandas to generate detailed flight data analysis, identifying key performance metrics
- Designed AutoCAD drawings for Mavic 2.0 drones and power line simulations to enhance assessment visualizations

University of Pennsylvania   March 2021 – November 2021
Undergraduate Researcher   Philadelphia, PA
- Consolidated research on polymerizing fibrin gels, specifically normal stress of gels over respective time
- Studied viscoelastic properties of hydrogel based on fibrinogen and thrombin levels, calibrated rheometer daily
- Coauthored a published article: https://www.sciencedirect.com/science/article/abs/pii/S1751616122002405

PROJECTS

Ingesting 13G - Capstone Project with Bloomberg L.P.
- Developed Python scripts to efficiently retrieve, process, and store 13G documents into S3 and DynamoDB
- Leveraged AWS services such as API Gateway and Lambda to perform CRUD operations on document data
- Used AWS SageMaker for data labeling, trained a NER model for data point extraction with 98% success rate

TuneLink - Split Sheets Generation Software
- Developed an automated CI/CD listing testing and deployment workflows with GitHub actions
- Used Spring Boot and MongoDB to architect APIs for seamless management of artists' songs and contributors

Stonx - Stock Market Trading Simulator
- Developed programmatic UI using Swift and UIKit and utilized Starscream to connect to Alpaca API WebSocket
- Designed HTTP interface for network requests to APIs, implemented transactions functionality by utilizing Parse

SKILLS

Languages: Python, Java, C, C++, Swift, SQL, JavaScript, TypeScript, HTML, CSS, Bash, MATLAB
Tools: React, Angular, Spring Boot, Django, Git, LaTeX, Docker, MySQL, PostgreSQL, MongoDB, Airflow, DBT