MICHAEL AHEDOR

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EDUCATION

Cornell Tech, New York, NY   May 2023
Master of Engineering in Computer Science

Relevant Coursework: Deep Generative Models (PhD), Machine Learning, Deep Learning, Data Science, Object Oriented Programming

Cornell University, Ithaca, NY   May 2022
Bachelor of Science in Computer Science

TECHNICAL SKILLS

Coding Language:	Java, Python, HTML, CSS, JavaScript, React, ADA, OCaml, C, MATLAB
Other Tools:	NumPy, AWS, Pandas, TensorFlow, Git, OSEE, Jenkins, VectorCast

EXPERIENCE

Boeing, Software Engineer, Mesa, AZ   June 2022 - August 2022
- Performed Java software engineering for the AH-64 Apache attack helicopter
- Added a terrain awareness and warning system (TAWS) partition and ensured its successful integration with the current partitions
- Created and ran unit tests with VectorCast toward dispositioned code for software coverage analysis (SCA)

Boeing, Software Engineer Intern, Mesa, AZ   June 2021 - August 2021
- Performed Java software engineering for the AH-64 Apache attack helicopter
- Created and ran unit tests with VectorCast toward dispositioned code for software coverage analysis (SCA)
- Performed traceability and data rights analysis for over 2000 requirements

Aabix, Software Engineer, Ithaca, NY   December 2021 - December 2022
- Conducted React frontend web development for the Aabix corporation website
- Worked with the backend team to seamlessly integrate and display queried data to users
- Integrated the entire frontend code for the customer home page
- Designed and implemented the frontend code for the public-facing website
- Set up the Aabix.com domain name

NASA, LUNAR-BC Research Intern   June 2020 - January 2021
- Conducted research for NASA on the feasibility of utilizing various plant and probiotic species with the intent to prevent immunosuppression in space
- Studied over 35 research papers in pursuit of this goal

PROJECTS

Cornell Tech, Product Studio   Fall 2022
Assisted Differential Ventures in their pursuit to study how data can be used to improve venture capital investing
- Performed stakeholder interviews to gain insights on the issues and pain points encountered by people involved in venture capitalism
- Engaged in discussions with a principal at Differential Ventures during our discovery process for assistance and guidance toward their goals

Cornell Global Business Club, Consultant Intern   Spring 2022
Performed consultancy work for House of Analytics via the Cornell Global Business Club
- Researched the financial and lending industries to identify innovative lending practices and trends with a focus on Southeast Asia
- Studied bank and technology partnerships and the role of digitization and artificial intelligence in the lending industry

Cornell Global Business Club, Algorithmic Trading Team Lead Intern   Spring 2021
Performed consultancy work for House of Analytics via the Cornell Global Business Club
- Performed technical analysis with the intent of identifying an appropriate indicator for a medium-term (weeks to months) algorithmic trading bot
- Performed fundamental analysis and provided consultancy on various strategies to include in their algorithm including web scraping and news sentiment analysis using NLP

ARTAS ALAJBEGU

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EDUCATION

Carnegie Mellon University, Pittsburgh PA   May 2023
Bachelor of Science, Mathematical Sciences. Minor in Computer Science.
Relevant Coursework: Artificial Intelligence: Representation and Problem Solving, Parallel Sequences and Data Structures, Great Ideas in Theoretical Computer Science, Computational Perception, Discrete Mathematics, Introduction to Math Finance, Operations Research I & II, Real Analysis I & II, Linear Algebra, Probability Theory

EXPERIENCE

Software Engineering Intern, Bliss Point Media, Inc.   May 2022 - August 2022
- Created a new internal-tools webpage that streamlined the management of client contact and timeline data, resulting in significant improvements to usability and latency.
- Designed and implemented a new database table to enhance the filtering of ad-specific streaming performance metrics, enabling clients to easily configure their preferences and improving overall data management.
- Refactored code to enhance the style and readability of methods that automate Slack notifications to clients and employees.

Calculus II Teaching Assistant, Pittsburgh, PA   January 2021 - May 2021
- Assisted students in mastering Calculus II concepts by leading virtual recitations twice a week on a wide range of topics, leveraging strong communication and teaching skills to facilitate student success.
- Graded quizzes and homework for 200+ students using Gradescope and held weekly office hours for student support.

Private Tutor, Goldberg Consulting, West New York   2017 - 2021
- Taught high school students fundamentals of geometry, trigonometry, calculus, and chemistry for in school exams and the SAT/ACT exams
- Created and taught lesson plans on Python and C programming languages for students in grades 3-12.

Aftercare Teacher, Upper Saddle River After School Program, NJ   2017 - 2019
- Oversaw and organized various activities for children in the Upper Saddle River After School Program.
- Collaborated with co-workers to mediate any problems and maintain records on each child in the case of any unforeseen situations.

PROJECTS

BoomFit – https://figma.fun/upfXT4   April 2022
- A Figma prototype of an app that takes the lifestyle goals of the older population and turns them into achievable fitness goals.
- Designed and built entirely in Figma during the 2022 CMU XHacks Hackathon

SpLaTeX – https://devpost.com/software/splatex   September 2020
- A Python based web app built using Flask, HTML, CSS and the Google Cloud Speech-to-Text API that converts speech into LaTeX code. Earned 3rd place at Hack CMU.

Mini Motorways Recreation – https://www.youtube.com/watch?v=GaAHKJQ6lcY   May 2020
- A recreation of the game Mini Motorways on Apple Arcade built entirely using Python.

ACTIVITIES

President, Carnegie Mellon University Rowing Club   2020 - 2021
- Acted as a liaison between the Rowing Club and the University Athletics Department to facilitate all club operations
- Conducted weekly meetings with club board members to keep up to date and manage all club activities.

Secretary, Carnegie Mellon University Rowing Club   2019 - 2020
- Organized travel, lodging, and payments for the Rowing Club's trips to all regattas in the northeast.
- Managed written records and files for all club events including registrations, meeting minutes, and training itineraries.

SKILLS

Software: Python, SQL, C, JavaScript, TypeScript, React, Git, C#, HTML, CSS, SML, Data Grip, Visual Studio Code, MS Office, Figma, Adobe Illustrator, Adobe Photoshop, Unity 3D, Cinema 4d, LaTeX.
Language: Intermediate proficiency in French and Albanian

Sumanth Aluri

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Education

Master of Engineering in Computer Science, Focus: Machine Learning   *May 2023*
Cornell University, Ithaca, NY

B.Sc. in Computer Science Engineering (Minor: *Electrical Eng*)– GPA: 3.9/4   *May 2022*
University of Florida, Gainesville, FL

Familiar Programming Languages and Software

- **Languages:** Python (High), C++ (Medium), C# (Medium), Java (Medium), JavaScript (Low), Dart (Low)
- **Frameworks:** TensorFlow, Pytorch, .NET, Spring boot, React JS, Node.js, Flutter
- **Other technologies:** Linux, Google Cloud Platform, Firebase,
- **Received official Tensorflow Certification**   *April 2022*

Relevant Coursework

Machine Learning related: Robot Learning, Principals of Large-Scale Machine Learning, Natural Language Processing, Adv. Topics in ML, Intro to ML, Data Analysis, Math for Intelligent Systems, Modern ML techniques
Other: Software Development, Data Structures, Database Systems, Operating Systems, Computer Architecture

Work Experience

Machine Learning consultant at Freedom Scientific *Tampa, FL*   *August 2022 – Present*
- Building an accessibility tool that uses super resolution ML models to improve screen magnification by 50%

Software Engineer at Freedom Scientific *Tampa, FL*   *August 2021 – August 2022*
- Developed a statistical model to predict a user's path through an application and make recommendations, thus reducing the learning curve for users new to the application.
- Established a framework for representing application navigation as bidirectional graphs.

Intern at Galatea Associates *St.Petersburg, FL*   *May 2021 – August 2021*
- Designed and implemented a new microservice for processing Kafka data streams and flagging anomalous data. This cut down bank financial data acquisition and processing time from days to hours.

Projects

Virtual drone navigation system *Ithaca, NY*   *January 2023 -present*
- Developing a system to run simulated environments and test drone navigation models.
- Worked on interface between ML models and underlying C# code to achieve 5x performance boost.

Phantom Mouse App *Gainesville, FL – Ithaca, NY*   *August 2021 - present*
- **Received the Donovan J. Welch Fellowship** (2022)
- Making an Android app that tracks movements of prosthetic hands and translates to Bluetooth HID controls. Thus, allowing amputees to use a computer cursor without relying on fine motor controle.
- Trained a computer vision model in Tensorflow that achieves better performance at tracking prosthetics than Google's MediaPipe hand tracker.
- Published a dataset of 7,000+ labeled images used to train custom machine learning models.

Heteronym Distinction with Transformers *Ithaca, NY*   *Oct 2022 – Dec 2022*
- Used state of the art Transformer models BART/BERT to solve the classic Natural Language Processing problem of distinguishing between heteronym words.

Software Design Team Leader *Gainesville, FL*   *January 2021 – August 2021*
- Developed a cross platform app using Flutter, Dart, and JavaScript to act as a bridge between patient's personal health tracking apps and the Hospital's secure database.

Research Experience

Graduate machine learning research project *Ithaca, NY*   *Oct 2022 – Dec 2022*
- Studied gradient free optimization methods and the effects of variance and population size on genetic algorithms. I found population size reduction schemes that reduced optimization costs for non-convex losses.

Undergraduate Researcher in SMILE lab *Gainesville, FL*   *December 2018 – September 2020*
- Worked on a machine learning project developing computer vision models to identify glaucoma in retina pictures.

KENNETH ALVAREZ

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https://github.com/Kalva014 / https://www.linkedin.com/in/kenneth-alvarez/

EDUCATION

Cornell University (Cornell Tech), New York, NY   **Expected May 2023**
Master of Engineering in Electrical and Computer Engineering | GPA: 3.7

University of California Riverside, Riverside, California   **May 2022**
Bachelor of Science in Computer Engineering | GPA: 3.5

Relevant Coursework: Virtual and Augmented Reality, Human Robotic Interaction, Data Structures and Algorithms, Embedded Systems, Machine Learning Engineering, Database Management Systems, and Web Development

Honors/Awards: Merit Scholarship, Chancellor's Honors List(2022), Dean's Honors List(2022, 2021, 2020)

TECHNICAL SKILLS

Coding Language:	Python, C++, C#, JavaScript, HTML, CSS, SQL, MATLAB, Verilog
Hardware/Software Tools:	MongoDB, Express, React, NodeJS, Unity, NumPy, Latex, Atmega16, ROS2, Raspberry Pi

EXPERIENCE

General Atomics, Software Engineering Intern, Poway, California   **June 2021- Aug 2021**
- Extended functionality of GUI applications to provide insights on UAVs using Python's frontend framework PyQT
- Implemented restful APIs through Flask and MongoDB to allow scientists to manipulate data from UAVs
- Created reusable code, automated tests, and clear documentation to simplify the development workflow for developers
- Decreased runtime of application that is used daily by 50+ engineers and scientists by 28% using multithreading

NSWC Corona, Software Engineering Intern, Norco. California   **June 2019- May 2022**
- Developed a regression testing suite in Python to assist a team of engineers with their software development
- Improved efficiency of Naval Ship analytics application with optimization techniques (e.g., multithreading, caching)
- Debugged 18% of all bugs/issues on a team of 8 software engineers on Jira Software
- Maintained a security clearance

PROJECTS

Squad box, (HTML, CSS, MongoDB, Express Framework, React, NodeJS)   **Winter 2021**
Created a chatroom web application that was assembled with the MERN tech stack
- Built both the front-end and back-end of the web application while leading a team of 3 engineering students
- Wrote React Components to create, edit, and delete chatrooms and messages that are stored on a MongoDB database
- Spearheaded the completion of 65% of all tasks

Gesture Recognition, (Python, NumPy, scikit-learn)   **Winter 2022**
Developed and trained a robust Machine Learning model from scratch to recognize a range of arm motion gestures with high accuracy
- Utilized IMU sensor readings from gyroscopes and accelerometers in a phone to train a set of Hidden Markov Models
- Implemented the Baum-Welch algorithm to optimize the Hidden Markov Models and improve their accuracy over time
- Preprocessed and analyzed sensor data using Python, NumPy, and scikit-learn to extract relevant features, including filtering, normalization, and K-means clustering

Creating Interpretable Social Cues from Robo-pets in Human-Robot-Interaction, (ROS2, Python)   **Fall 2022**
Conducted a study that analyzes how humans naturally react to zoomorphic robots when these robots perform different actions
- Programmed a Turtlebot4 robot to simulate a robotic pet that completed tasks generating natural reactions from people
- Incorporated techniques and algorithms such as Simultaneous Localization and Mapping (SLAM) for navigation

ACTIVITIES/INTERESTS

UC Riverside's Table Tennis Club(Vice President), Surf Club(Member), Basketball, Volleyball

Gaurav Ganesh Amin

Brooklyn, New York

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Summary

Currently pursuing Masters in Computer Engineering from New York University. Seeking opportunities in Software Development, Machine Learning, Data Analysis and Performance Engineering.

Education

New York University   **May 2023**
MS in Computer Engineering   *New York, U.S.A*

National Institute of Technology Karnataka, Surathkal   **May 2018**
Bachelor of Technology in Electronics and Communication Engineering   *Surathkal, India*

Experience

Sonata Software   **Aug 2018 - Aug 2021**
Senior Systems Analyst   *Bengaluru, India*

- Performed performance tests for ERP such as mixed load, MRP, DIXF, Adhoc, FTI and limit test runs to check performance related aspects of AX D365 ERP F&O and various business processes normally used by customers through Finance and Operation related modules in Dynamics 365
- Analyzed results from above tests related to performance of various business processes carried out in Microsoft Dynamics ERP to check for performance related issues caused by running SQL queries or X++ methods at the background and resolving them by query tuning using tools including Microsoft Dynamics Trace Parser, Microsoft Azure Profiler Viewer, SQL Server, and Microsoft Azure Portal, and shared the same with client through written and verbal communication.
- Automated tasks including creation of folders in a particular directory, copying folders and appending text in configuration files as part of performance testing using Powershell, cutting down task time by 50%
- Collected and understood customer requirements and project KPIs.
- Identifying, triaging, reproducing, debugging, fixing and resolving bugs related to performance issues in Azure DevOps.
- Used Azure containers to store database backups through Azure Blob Storage.

Projects

Gesture based interaction for computer operations | *Python, OpenCV, MediaPipe, Autopy* | Link

- Implementation of virtual zoom, virtual volume-control, virtual mouse-control and virtual PPT navigation modules by the detection of different hand gestures
- Implementation of hand tracking, palm landmark detection using OpenCV and Mediapipe

Predicting availability of banking facilities using ML | *Python, Machine Learning* | Link

- Created a Loan Repayment Prediction model that would help banks determine if a customer would be able to successfully repay a loan on-time
- Created a Customer Satisfaction Prediction model to help predict customers switching banks
- Created a Credit Default Prediction model for banks to better focus on the retention of suspected exiting customers who have a sound credit score
- Performed SHAP analysis on the created models to determine the extent of impact of each of the features towards the final prediction

Image cartoonification and caption generation | *Python, Keras, OpenCV,JavaScript* | Link

- Used OpenCV image filters for cartoonifcation of input image
- Performed feature extraction, description cleaning, used a pretrained VGG-16 model for feature extraction and used LSTM RNN for performing sequence prediction on the feature vectors
- Calculated BLEU scores for estimation of model performance

Driver drowsiness detection | *Python, OpenCV, JavaScript* | Link

- Implemented eye detection module and calculation of eye aspect ratio using OpenCV
- Performed live video stream capturing using JavaScript and incorporated a functionality for triggering of an alarm upon drowsiness detection

Technical Skills

Programming Languages: C, C++, Python, MATLAB, HTML, CSS, JavaScript, SQL, X++, Java, Springboot, React.js
Tools and Technologies: Git, Agile, SOAP, REST APIs, XML, JSON, CSV, Microsoft Azure, Microsoft PowerBI, Tableau, Windows Powershell, Microsoft Office Suite, Linux, Data Analysis, MongoDB
Relevant Coursework: Data Structures & Algorithms, Database Management Systems, Machine Learning, Deep Learning, Computing Systems Architecture, Internet Architecture and Protocols

NIRMAL AMIRTHALINGAM

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EDUCATION

Virginia Tech, Blacksburg, VA   **May 2023**
Master of Engineering in Computer Engineering   *GPA: 3.96/4*
Coursework: Advanced Machine Learning, Deep Learning, Computer Vision, Data Analytics, Information Visualization

Amrita Vishwa Vidyapeetham, Coimbatore, India   **Jun 2020**
Bachelor of Technology in Electronics and Communication Engineering   *GPA: 8.57/10*
Coursework: Pattern Recognition, Optimization Techniques, Image Processing, Probability and Random Processes

SKILLS

Programming: Python, SQL, C++, MATLAB

Libraries: PyTorch, TensorFlow, OpenCV, NumPy, SciPy, Keras, Scikit-learn, NLTK, spaCy, Pandas, Matplotlib, Seaborn

Tools/Frameworks: Docker, Git, GitLab, PostgreSQL, MongoDB, Spark, Kafka, Airflow, Tableau, D3.js, Flask

Cloud: AWS (SageMaker, Glue, Lambda, Athena, RDS, S3, EC2), Azure ML Studio

EXPERIENCE

Research Assistant   **Aug 2022 - Present**
Virginia Tech   *Blacksburg, VA*
- Implemented **YOLOv7** and **Faster R-CNN** to extract objects from Electronic Theses and Dissertations (ETD)
- Integrated to a retrieval and search system that supports **50k ETDs** by providing **Dockerized** services with **CI/CD**
- Currently, working on **vision transformer** models for self-supervised pre-training on large-scale unlabeled ETD corpus

Machine Learning Intern   **May 2022 - Aug 2022**
AreaProbe   *Washington, DC*
- Developed an **object detection** and **tracking** model for pedestrians and vehicles based on **YOLOv5** in PyTorch
- Incorporated the model into production system for **35 RTSP cameras** in nearby parking lots and housing communities
- Integrated with a **MobileNet audio detection** pipeline with an SMS trigger to detect **gunshots** in real-time
- Performed **color recognition** on saved image crops for vehicles, and tracked object counts for the **surveillance** system
- Deployed the model using AWS **EC2** instances, and stored detected objects in **S3** bucket and structured data in **RDS**

PROJECTS

Loan Default Prediction   **Aug 2022 - Nov 2022**
- Implemented **gradient boosting** methods to assess credit risk and predict customer defaults from LendingClub dataset
- Performed **EDA** and data pre-processing to address class imbalance, and **PCA** to reduce feature dimensionality
- **XGBoost** classifier with Grid Search for hyperparameter tuning achieved an accuracy of **87 %** and AUC of **0.93**

Text-to-Image Generation using GANs   **Mar 2022 - May 2022**
- Experimented with Generative Adversarial Networks (**GAN**) for **text-to-image** synthesis in PyTorch
- Implemented a **deep fusion** model with text-guided image manipulation on the Caltech-UCSD Birds (**CUB**) dataset
- Reduced model parameters by a third, while achieving the same **FID** of 10.2 and **IS** of 5.9 as the baseline model

Hybrid Recommendation System   **Jan 2022 - Mar 2022**
- Designed a hybrid recommender system using user and item-based **collaborative filtering** to predict user ratings
- Used **Spark** to analyze and train model on **5.2M user ratings** with text reviews for restaurants from Yelp Open dataset
- Achieved **RMSE** score of **0.979** on the validation set using collaborative filtering with matrix factorization and SVD

Trending YouTube Video Analytics using Sentiment Analysis   **Feb 2022 - May 2022**
- Analyzed key performance indicators for trending videos in the US using **sentiment analysis** with NLTK
- Extended to trending videos in multiple countries by pre-processing raw JSON files using **AWS Lambda** and **Spark**
- Designed ETL pipeline using **Glue** to load analytical data into S3 bucket for creating visualizations in **QuickSight**

David B. Armah Jr.

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EDUCATION

Virginia Tech - Blacksburg, VA **August 2018 – May 2022**

Bachelor of Science in Computational Modeling Data Analytics with Computer Science concentration
Minors: Computer Science, Mathematics
- In Major GPA: 3.44/4.00
- Relevant coursework: Object Oriented Programming, Computer Organization, Cloud Software Development, Cryptography, Data Structures & Algorithms, Data Analytics & Visualization, Data Analytics and Machine Learning, Data Science for Quantitative Finance, Data Management & SQL

TECHNICAL SKILLS

- **Programming Languages**: Java, JavaScript, Python 3, MATLAB, R
- **Operating Systems** Linux, Unix, Windows
- **Database**: SQL, MongoDB, MS Access
- **Frameworks/Software**: AngularJS, Node.js, Express.js,Java Spring Boot, Eclipse, Git, Snowflake, Databricks

WORK EXPERIENCE

Capital One **August 2022 – Current**

Data Management / Analyst
- Developed and managed scripts to manipulate and retrieve sensitive data pertaining to users that were past due on credit card payments via SQL and Python.
- Designed and developed ETL pipelines using PySpark to distribute necessary data to parts of the business in order to understand specific tasks and needs to maintain flow of business
- Maintained data quality through data warehouses, detailed reports, and Github
- Provided analysis and insight to business on company production and outputs regarding data
- Provi

U.S. Census Bureau

Software Developer Intern **August 2021 – January 2022**
- Created ETL pipelines to access U.S. Census Bureau Planning Database (PDB) using Python 3
- Provided models predicting American Community Survey (ACS) response rates at the census tract and block group levels using extreme gradient boosting algorithms and other data modeling and prediction techniques
- Developed interactive dashboard using Tableau API in JavaScript displaying spatial relationships for PDB between tract and block groups
- Utilized Statistical methods and Mathematical modeling to explore the geospatial relationship between block and tract levels
- Managed projects on Github in complete SDLC process in analysis, design, development, testing and maintenance of software.

PROJECT EXPERIENCE

Gym Fit App

JavaScript/HTML/CSS/MongoDB
- Used MEAN stack web application that tracked users' fitness and health progress over time, as well as provides users with health-related advice
- Utilized REST APIs to access and upload user's personal data
- JSON Web Token based authentication and authorization

Bug Tracking System

Java Spring Boot/ MySQL
- A web application that tracks reported bugs or tasks pertaining to specific projects
- Allows developers to have knowledge of all reported bugs on projects
- Notification system to notify and track when bugs are resolved or still pending for project team members

Performance based Modeling

Python/MS Excel
- Web scrapes data from various NFL and NBA modules using pythons request and pandas' software library
- Utilized Markov chains and dynamic programming to create probabilities for various player outcomes in sports
- Regression based analysis to compare team performances, monte carlo analysis to simulate game outcomes

Saqib Aziz

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Software Developer with a Bachelor's Degree and 3+ years combined professional experience with **React, Node.js, Axios, JavaScript, HTML/CSS, Python, and SQL**. Seeking to leverage problem solving ability, eagerness to grow skill set, and strong business acumen in a Software Developer role.

Technical Skills

Languages: JavaScript, HTML/CSS, Python, Java, SQL
Technologies: React, Node.js, Express, Flask, Typescript, JUnit, Axios, Selenium, Puppeteer, Next.js, MongoDB, PostgreSQL

Experience

Full Stack Developer   August 2019 – Present

Hyperfect LLC   *Edison, NJ*
- Developed a full-stack web application from scratch to production using Javascript to automate information scraping and submission, with a current user base of over 1000 individuals.
- Developed and implemented retail acquisition software using JavaScript and Solidity, automating the process of buying digital assets, driving efficiency and increasing profits by 10%
- Applied DevOps and CI/CD principles, along with automated test and build tools, to ensure continuous integration and delivery of high-quality software.
- Utilized Node.js and Express to develop back-end and API functionalities for the web applications, ensuring smooth and secure communication between front-end and back-end components.
- Collaborated with cross-functional teams, including designers and product managers, to deliver feature-rich and user-friendly web applications.

Education

Rutgers University   May 2020

Bachelors of Science, Cognitive Science   *New Brunswick, NJ*
College Coursework: Data Structures, Databases, Discrete Structures 1 & 2, Design and Analysis of Algorithms, Principles of Programming Languages
Other Education: The Web Developer Bootcamp 2022, Ethereum and Solidity: The Complete Developer's Guide (Udemy)

Projects

Valorant Stat Tracker | *Javascript, JSX, React, Bootstrap, Axios, Node.js*   September 2022 – Present
- Developed a web-based application that provides real-time tracking and analysis of in-game statistics for players of the popular online game Valorant, using JavaScript and React
- Utilized REST APIs to fetch and process data from the Valorant API, extracting relevant game statistics such as kill/death ratios, win rates, and weapon accuracy.
- Conducted thorough testing and debugging to ensure the accuracy and reliability of the tracked statistics, and resolved issues in a timely manner to ensure smooth functioning of the application.

Mint it | *JavaScript, Node.js, Axios, Web3.js, Ethers.js, Infura API, Etherscan API*   May 2018 – May 2020
- Led the development of a program that successfully interacted with and minted non-fungible tokens on the Ethereum blockchain
- Implemented Alchemy's API to create new crypto wallets for the user's blockchain interactions
- Constructed contract signing methods to the Ethereum Mainnet with adjustable conditions via Web3.js, resulting in 10 active users generating over 30 ETH in profit
- Analyzed contract methods and requirements using Axios with the Etherscan API to optimize data retrieval time to sub 3 seconds
- Provided technical support and training to end-users, resolving inquiries and issues in a prompt and professional manner to ensure smooth system adoption and usage.
- Implemented security measures, including user authentication and authorization, to protect sensitive data and ensure compliance with data privacy regulations.

Vikram Badhan

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EDUCATION

New York University, New York, NY   *Sep '21 –May 2023*
Master of Science, Computer Science   GPA: 3.48/4.0

Guru Gobind Singh Indraprastha University, New Delhi   *Aug '14 – May '18*
Bachelor of Technology, Information Technology   Aggregate: 80.2/100

EXPERIENCE

New York University – IT Department   *May '22 – Present*
Student Arch Analyst   Manhattan, NY
- Migrated to NoSQL database to automate the data extraction process and created a portal for data collection boosting developer efficiency by **70%**.
- Leveraged this data to create visualizations having multiple capabilities (like filtering) and automated this process which ultimately reduced the effort required to extract/read data by **30hrs/week**.
- Analyzed the 'essential cloud' enterprise architecture tool to import NYU's business capability data and relate items in the configuration management database (CMDB).

New York University – Department of Civil and Urban Engineering   *Feb '22 – May '22*
Graduate Assistant   Brooklyn, NY
- Designed an application for **1500** monthly users to Visualize and render BIM (Building Information Model) on the server side using ReactJS's threeJS library.
- Parsed around **3000** mesh components from BIM model using a python's IFCopenShell library and React-Three-Fiber renderer.
- Mapped the mesh components with the BIM model to dynamically show highlights, annotations and text overlay on a selected group of meshes.

Innefu Labs   *July '20 – Aug '20*
Business Analyst   New Delhi, India
- Designed processes for in-house Big Data Analytics Framework, OSINT Crawler, CDR Analysis, FR-System built from scratch for **15** Govt. of India Law Enforcement Sectors & Private corporations.
- Created suitable solutions by implementing Agile Methodologies through collaboration with 5 Law enforcement agencies.

NITI Aayog – Government of India   *June '17 – July '17*
Science and Technology Intern   New Delhi, India
- Created a MVC Application (monitoring dashboard) catering to **5000 users/month** containing details about the grant releases to NGOs by various ministries in the Indian government.
- Analyzed the MVC architecture and the application workflow to digitize the documentation and reduced the effort required for manual documentation by **100 hours/week**.

TECHNICAL SKILLS

- **Programming Languages:** Python, JavaScript, Java, C/C++
- **Web Technologies:** HTML, CSS, NodeJS, ExpressJS, ReactJS, ThreeJS, JQuery, Socket.io, REST API, React-Three-Fiber
- **Database and Cloud:** SQL, MongoDB, Elasticsearch, DynamoDB, AWS (Lambda, S3, OpenSearch, Lex, SQS, SNS, Sagemaker)
- **ML/Python Libraries:** NumPy, Pandas, TensorFlow, BeautifulSoup, OpenCV, Seaborn, Sklearn, Matplotlib, PySpark
- **Tools/Frameworks:** Tableau, PowerBI, Git, Github, Jupyter, Postman, VSCode, Autodesk Revit, Essential Cloud, Jira

PROJECTS

AWS Smart Health App *(S3, Lambda, API Gateway, Cognito, DynamoDB, OpenSearch, Sagemaker)*   *May '22*
- Developed an online meal recommendation and food delivery app that suggests meal to users based on their nutritional goals.
- Utilized an online food dataset which included meals with their nutritional values to train a machine learning model which gave us customized meal plans for the users to choose.

Dining Concierge Chatbot using AWS *(S3, Lambda, Lex, SNS, SQS, DynamoDB, OpenSearch)*   *March '22*
- Developed an AWS Lex Chatbot that recommends restaurants in the New York City area.
- Scraped data from Yelp, indexed the results using AWS OpenSearch and stored the data in DynamoDB.
- Deployed Lambda function to interpret chat inputs and sent the most relevant recommendation to the user's phone using SNS.

Voice Based Smart Photo Album *(S3, Lambda, CodePipeline, CloudFormation, OpenSearch, API Gateway)*   *April '22*
- Developed a photo album app to support natural language through text and voice search. Performed Object detection on uploaded images to generate tags.
- Indexed images based on those tags using AWS OpenSearch and created a voice chat interface to convert speech to text and search for image

Sang Won Bae

sbae0101@gmail.com   Github: https://github.com/redtext00   912-856-1793

EDUCATION

The University of Georgia, *Honors Program*, Athens, GA
- Bachelor of Business Administration, *Management Information Systems*   May 2022
- Bachelor of Arts, *Philosophy*   May 2022
- Overall GPA: 3.81/4.00
- Awards & Scholarships: Phi Beta Kappa, Magna Cum Laude, Dean's List, Zell Miller Scholarship

CLASS PROJECTS

Miami Sports Teams Win Chart   October 2022
Developer
- Designed a data visualization chart with Python (Matplotlib) displaying how the win percentages of the Miami Dolphins and the Miami Heat changed over years since 2010
- Acquired win/loss charts from Wikipedia before data processing with NumPy, Pandas, and Re

Detecting Fraud   October 2022
Developer
- Designed a machine learning algorithm (Logistic Regression) to detect credit card fraud
- Processed data using NumPy, Pandas, and Scikit-Learn

VOLUNTEER EXPERIENCE

University of Georgia   Spring 2021
- Service project for Mist 4620S (Systems Analysis and Design)
- Worked in a group of five to create webpages
    - Communicated with clients to understand their needs for the pages
    - Utilized Salesforce, agile, and scrum
    - Enabled an administrator to accept or deny access requests

Soleil   Fall 2020
- Service project for MIST 5740S (Project Management)
- Helped create a webpage for a senior retirement community company
    - Used simple yet elegant fonts that would be readable for senior citizens
- Conducted meetings with one of the upper management officers of Soleil
    - Discovered their needs & scope of the service project

Jackson County Habitat for Humanity   Fall 2020
- Service project for MIST 5740S (Project Management)
- Helped bring attention to a lottery
    - Lottery was raising money to build homes for the disadvantaged
- Conducted meetings with heads of Jackson County's Habitat for Humanity
    - Discovered their needs & scope of the service project
- Designed simple yet colorful designs for the Instagram page
- Designed simple yet pleasant flyers for public advertisement

RELEVANT COURSEWORK

Business: Introduction to Information Systems in Business, Project Management, Business Process Management, Principles of Marketing, Financial Management
Programming: Energy Informatics, Computer Programming in Business, Data Management and Analytics, Systems Analysis and Design, Developing Secure Applications in the Cloud, Python for Everybody
Math/Statistics: Calculus I, Statistical Analysis for Business, Predictive Modeling and Optimization

SKILLS & INTERESTS

Languages and Script: Python, R, Java, SQL, HTML, CSS, Excel
Machine Learning: Classification, Logistic Regression
Libraries: Pandas, Scikit-learn, Numpy, matplotlib, re, seaborn, datetime
Interests: US Politics, UK Politics, World News

Sayan Banerjee

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EDUCATION

New York University   **New York City, NY**
Master of Science in Computer Engineering (GPA: 3.82)   *Graduation Date: May 2023*
- Courses: Machine Learning, Programming in Data Science, Data Structures and Algorithms, Deep Learning, Internet Architecture and Protocol, High Performance Machine Learning, Network Security, and Computer Architecture, Big Data

Institute of Engineering and Management   **Kolkata, India**
Bachelor of Technology in Computer Science and Engineering   *May 2020*

EXPERIENCE

Research Assistant at NYU Multimedia and Visual Computing Lab   *March 2023*
- Research Assistant for creating novel and state-of-the-art 3D Generative Deep Learning solutions and new AutoML/ML systems architectures/pipelines with potential applications in Architecture, Gaming, Industrial Automation, Smart Transportation, Healthcare, and Robotics.
- Worked on building a framework for manipulation of 3D volumetric objects represented as Neural Radiance Fields (NeRF) in a user-friendly manner, that is, simple text or images by leveraging CLIP embeddings.

Software Developer Summer Training Program (Java), NIIT, Kolkata   *May 2019 – September 2019*
- Completed courses on Java Core and Advanced for Object-Oriented Programming at NIIT.
- Received an Award of Achievement as part of the Oracle workforce development program.
- Developed a Java application using Maven for tracking and scheduling classes and recording student progress.
- Created GUI for the application using Java Swing and built a backend database with MySQL.

Software Engineer Intern at Corelynx   *July 2016 - August 2016*
- Prototyped a solution for migrating legacy data to the cloud including setting up a MySQL and DynamoDB server for data storage
- Configured and set up an EC2 instance with S3 cloud storage with a team.
- Assigned individual roles and policies to groups with Identity Access Management (IAM).

PROJECTS

Real-time Chess AI   *Fall 2022*
- Mapped a chessboard representation to a score using a CNN that was trained on more than 262k samples from a mix of generated boards and historical games, using Stockfish engine scores as labels. This CNN scoring function was then used to play a chess game with a Monte-Carlo (Mini-max) Search Tree exploration algorithm.
- Optimized the Algorithm by utilizing Search Tree Pruning and Distributed Forward Pass on High-Performance Cluster to reduce the time required by the AI to make a move by 13x.
- Created a simple User Interface(UI) with HTML, CSS, and Flask to showcase the gameplay.

Back To School: Improving Word Representations Using Self-Supervised Learning   *Summer 2022*
- Achieved 2.5% increase in accuracy from the baseline by adding context of grammer. Proved that existing word embeddings can be enriched with grammatical context using BYOL (Bring Your Own Latent) technique.

Optimizing Resnet-18 Design within a 5M Parameter Budget   *Spring 2022*
- Attained 91.12% accuracy using a combination of Data Augmentation and Regularization, among other optimizations. Fine-tuned hyper-parameters (c1=58 and num blocks= [3,10]) of the network on a 5M parameter budget with ADAM optimizer and ran about 150 models on the CIFAR-10 dataset to conclude that wider networks are better than deeper networks in the specified budget.

Heart Attack Risk Predictor Web App   *Spring 2022*
- Devised End-to-End Machine Learning Project using MLOps principles with CI/CD pipelines and modular programming.
- Tested and constructed statistical and ML models with 13 input features and trained them on 300+ data points, with the best classification accuracy achieved of 86.89% when predicting the risk of a heart attack.
- Created automated pipelines for Data Ingestion and Transformation, Model Training and Evaluation, and Model Deployment using GitHub Actions.
- Created a Front-end web application using HTML, CSS, Bootstrap, and Flask.

Data Wrangling and Visualization with the CDC COVID-19 Dataset   *Fall 2021*
- Acquired, cleaned, and processed data from 9 different datasets (CDC COVID Data Tracker).
- Performed EDA and actions like linear regression, ANOVA, and t-tests to examine patterns of COVID-19 with respect to spread, mortality, and vaccinations using Python libraries like pandas, Numpy, GeoPandas, seaborn, SciPy, and statsmodels.
- Designed visualizations like bar/box/pie/violin plots, Geo Heat-Maps, Correlation matrix and choropleth maps. Identified how vaccine hesitancy, vaccine efficacy, poverty, vulnerability index, insurance status, underlying conditions, and race are related to COVID-19 deaths.

Application of Natural Language Processing on Character Computing: A Short Review   *Fall 2020*
- Performed a comparative study of successful personality trait prediction models using Natural Language Processing techniques to derive a direction for future development.

Borderline Personality Disorder Detection and Prediction using NLP   *Spring 2020*
- Secured accuracy of 76% (under severe computational constraints) on prediction of BPD using Bi-LSTM or bidirectional RNN model on datasets scraped from Reddit and Twitter.

SKILLS AND INTERESTS

Coding Languages: C++, CSS, HTML, Java, JavaScript, Python, SQL, R, MATLAB, Cuda**,** Bash, Shell

Data: MySQL, PostgreSQL, MongoDB, Apache Spark, Kafka, Airflow, Hive, Neo4j, Hadoop, Firebase/Firestore, AWS

Software Development: Git, Docker, ReactJS, Redux, NodeJS, ExpressJS, Bootstrap, JQuery, Flask, GraphQL, NPM, Jest

Machine Learning: TensorFlow, Pytorch, Pandas, Matplotlib, NumPy, seaborn, SciPy**,** Keras, NTLK, Scikit, dplyr , ggplot2