Aman Saxena

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Skills

Tools/ Methodologies: Google Cloud Platform | Scrum | Kanban | Agile | DBeaver | PostgreSQL/ MySQL | Scikit Learn | Git/Github | AWS | Node | React | Express | Django | Pandas | Numpy | POSIX/UNIX | Linux | Flutter

Languages: Javascript | Java | Python | C | C++ | HTML | CSS | Dart | Verilog HDL | RISC-V | x86-64 Assembly | MATLAB | Verilog HDL

Professional Experience

GLogic   Remote
Intern - Full Stack Development   *June 2023 - Present*
- Deployed fully functional multi-input forms, lookup tables, and webpages for a web business automation platform used by healthcare clients using frameworks such as **React, Node,** and **Django**.
- Applied styles and event-driven functionality using **HTML, CSS, and Javascript**. Managed and uploaded application files and versions using **Github**. Working on the development through **Google Cloud Platform** and **Express JS**.
- Created new APIs using **REST** and **Django** methodologies alongside responding to and working on urgent requirements concerning locking form input fields and creating new tables in the database through **DBeaver** and **PGAdmin**.

TVD Associates / Rutgers MBS Externship Program   Edison, NJ
Lead Extern - Research (Data Analytics)   *Sept 2022 - Dec 2022*
- Conducted research on member organizations and their involvement with the firm.
- Designed a rubric and a scoring system using **Microsoft Excel** to rate/ score the interaction between the firm and its members.
- Organized meeting sessions and built objectives for a collective and motivating work environment for the team.
- Promptly responded to requirements and planned changes to existing developments in collaboration with the team.

Education

Rutgers University
Bachelor of Science - Computer Engineering   *Sept 2020 - May 2024*
Minor - Computer Science
- Cumulative GPA: 3.7.
- **Dean's List** throughout 2020-2023.
- Relevant Coursework: Intro to MATLAB, Programming Methodology I / **C++**, Programming Methodology II (**Data Structures and Algorithms**), **Computer Architecture (RISC-V)**, Software Engineering (Javascript, HTML, and CSS), Intro to Comp. Systems **(UNIX/ POSIX)**, **Machine Learning** (Pandas, Numpy, LDA classification models, QDA models, KNN models, SciKit Learn)

Awards

Member of Rutgers **Electrical and Computer Engineering Honor Society** / Eta Kappa Nu (HKN) and **Rutgers Institute of Electrical and Electronics Engineers** (RIEEE) since 2023.

Rutgers Dean's List in the School of Engineering throughout the years 2020-2023 for excellent and consistent academic performance.
On track to graduate with the Highest Honors (Summa Cum Laude) in Rutgers School of Engineering in May 2024.

Projects

- **R-INSIGHT (Rutgers Real-time Interactive Neural Sensory Integration Glasses for Hearing Technology) - 6th Best Project | Project with the Best Impact | Rutgers ECE Capstone Design**
  - Developed affordable smart glasses with **real time** transcription, translation, and navigation on customizable glasses.
  - Built in **iOS/ Android app** integration using **Flutter** and **Dart** and connectivity with your phone for those with hearing loss.
  - Achieved 93% accuracy with **live translation** and **live transcription** using <u>Flutter's Google Translate API</u>, and <u>Speech to Text API</u>.
  - Integrated Text To Speech with **volume, speech rate,** and **pitch** controls for fully custom user preferences on the Flutter based mobile app.
  - Developed the backend using **Python's websocket servers** for taking in audio input, displaying the output on a Sony display, using a custom built PCB.
- **Dog vs. Cat Image Classifier - Support Vector Machine**
  - Loaded and processed over **2000 images** using <u>Pandas</u> and <u>Numpy</u>
  - Used <u>Scikit Learn</u> and Core Applied Machine Learning concepts to process, analyze images from a Kaggle dataset, perform **K-fold Cross Validation** training of the Support Vector Classifiers with various regularization values.
  - Achieved an accuracy of **62.38%**, correctly classifying over 2000 images of just Dogs and Cats in various light settings, angles, and backgrounds.
- **House Price Prediction Regression Models - Linear Regression, Ridge Regression**
  - **Loaded and processed tabular data** containing data of over 21000 houses in King County, USA, with 21 features, using <u>Pandas</u> and <u>NumPy</u>. Developed 3 new features using Applied Machine Learning and Feature Engineering skills gained in Machine Learning for Engineers at Rutgers.
  - **Trained** a **Linear Regression** and a **Ridge Regression** model after standardizing the features and performing K-fold cross-validation.
  - Evaluated the performance of the models using <u>root mean squared error</u> and <u>R2 Scores</u>.
  - Visualized the performance comparison between the models by graphing the predicted prices and the actual prices using **Matplotlib**.
  - Achieved an **R2 score of 0.7** (maximum 0.99) on both regression models, ensuring almost perfect predictions for all the house prices.
- **Codevengers Assemble- Hackathon by IEEE (Institute Of Electrical And Electronics Engineering) Rutgers.**
  - <u>Winning Project</u>: Created a Virtual Discord Bot using **Python** and **Kivy** to assist the RIEEE Discord server's administrators in <u>scheduling and sending cross-channel announcements</u> | <u>Greeting members</u> when prompted | Sending inspirational quotes <u>on triggering commands</u>. | Setting multiple countdowns and timers.
- **HackHers 2022 at Rutgers by Women in Computer Science (WiCS).**
  - **AutoZoom**: Developed using **Python skills and Python-supported APIs**. <u>Automatically open</u> any scheduled Zoom meetings at the exact starting time.

Certifications

- **Google Cloud Platform - Cloud Digital Leader,** Udemy   *January 2024*
- **Agile Software Development,** LinkedIn   *January 2024*