Shrinivas Venkatesan

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Education

Purdue University – West Lafayette, IN

M.S. Computer Science   **August 2024 – May 2026**

Areas of Interest: Artificial Intelligence, Machine Learning, Natural Language Processing

- **Relevant Coursework:** Information Security, Artificial Intelligence, Database Systems, Algorithm Design & Analysis

B.S. Computer Science, Data Science, Applied Statistics   **August 2021 – May 2025**

Concentrations: Machine Intelligence, Database and Information Systems, Certificate in Entrepreneurship   *GPA: 3.92/4.00*

- **Relevant Coursework:** Data Structures and Algorithms, Analysis of Algorithms, Data Mining & Machine Learning, Operating Systems, Information Systems, Systems Programming, Probability, Regression Analysis, Statistical Theory

Skills

Languages Known: Python (NumPy, Pandas, Matplotlib, Scikit-learn, PyTorch, OpenCV, Flask, BeautifulSoup), Java (JUnit), SQL (SQLite3, MySQL), JavaScript, TypeScript, C/C++, SAS, MongoDB, Neo4j, Bash, HTML/CSS, R, Dart
Frameworks/Tools: React, NextJS, Angular, NodeJS, Linux, Git, Azure, AWS, GCP, Agile (Jira), DevOps, Flutter
Certifications: AWS Certified Solutions Architect - Associate (In Progress)

Experience

Software Engineer Intern   **June 2024 – Present**

Exelon – Oakbrook Terrace, Illinois

- Collaborated with a team of 12 developers to integrate state-provided utility assistance programs for lower and middle-income households into the online bill payment portal
- Improved customer access to 10 programs, rebates, and incentives by designing intuitive panels in Angular for the website

Undergraduate Teaching Assistant – Computer Science   **March 2023 – Present**

Purdue University Department of Computer Science – West Lafayette, Indiana

- Hosted labs and office hours for 140+ students, covering concepts like Data Wrangling, PCA, GGPlot, KMeans, SQL, etc
- Conducted help room sessions offered to 800+ students, guiding them on topics in Java, C, and Discrete Mathematics
- Showcased effective interpersonal skills by responding to 500+ student questions on online discussion boards

Software Engineer Intern   **May 2023 – August 2023**

ZF North America, Inc. – Northville, Michigan

- Leveraged an OpenCV model with 87% accuracy to generate coordinates for vacant parking slots from vehicle video files
- Developed mobile and web interfaces using Flutter/React to display available parking slots using the OpenStreetMaps API
- Deployed Python scripts in dSpace (simulation tool) to recreate 20 common crash scenarios from a German accident study

Associate Engineer Intern – Product and Platform Engineering   **May 2022 – July 2022**

Altimetrik Corp. – Southfield, Michigan

- Implemented a Random Forest ML model with 85% accuracy to predict story completion and spill-over probability
- Built a user-friendly React UI showing the recommendations provided by the model for optimizing story completion rates
- Employed REST API calls to integrate the model into the Jira diagnostics toolkit offered to 5000+ practitioners

Projects

Office Hours Visualizer (github.com/shrinivas0703/Office-Hours-Visualizer)   **January 2024 – May 2024**

- Designed a full-stack NextJS website with CRUD functionality to improve office hours management for students/faculty
- Enhanced data accessibility using a Python/SQLite backend for dynamic content rendering based on 5 filterable attributes (course, day, TA, etc.)

Portfolio Website (shrinivasvenkatesan.com)   **December 2022 – Present**

- Published a React website hosted on Netlify, presenting my past projects and skills in a responsive and intuitive manner
- Incorporated the HeroTofu Forms API into the website, allowing users to contact me and inquire about my work directly

Expenses App (github.com/shrinivas0703/react-apps)   **July 2022**

- Created an Expenses App in React, showcasing monthly/yearly breakdowns of user expenses through interactive bar charts
- Presented comprehensive expense analyses, allowing users to track and manage their financial information effortlessly