# ARJUN VENAT

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#### **EXPERIENCE**

# **Empower Analytics, LLC**

Worcester, MA

Junior Advanced Analytics Engineer

August 2024 – Present

- Leading the development of an MLOps pipeline that pairs ML models and LLMs with a backend API and deploys it in the cloud infrastructure for a leading expedited shipping company in the US.
- This work allows for streamlined access to cutting edge pricing models, boosting the productivity of their employees.
- Building pipeline with Docker, GitHub Actions, AWS Elastic Kubernetes Service, and AWS Elastic Container Registry.

#### **Automatic Data Processing, Inc. (ADP)**

Roseland, NJ

Summer Intern

June 2024 – August 2024

- Developed a full-stack application that enables the Site Reliability Engineering (SRE) team to dynamically control concurrency and rate limiting for all APIs for the Autopay Core payroll product.
- Actively deployed in production, this solution protects vital APIs for the core payroll engine from excessive use and overload, ensuring seamless payroll processing for over 500k ADP clients across North America.
- Tech stack is MongoDB, Apache Ignite, Java, Spring Boot, React.js, Node.js, MSAL for Azure.

#### **Worcester Polytechnic Institute**

Worcester, MA

Data Science NSF REU Student

May 2023 - August 2023

- Developed a model to simulate and analyze the market behavior of non-profit organizations (NPOs) using SWAP: a growing platform for NPOs to standardize the exchange of resources.
- Pioneered a credit redistribution mechanism with significant anticipated impact toward equity for future exchanges between NPOs, which led to a co-authorship position on a paper submitted to the INFORMS Operations Research Journal.

#### **PROJECTS**

#### Fidelity Enterprise Development Group – Early Career Portal (ECP)

Boston, MA

Fidelity Investments

August 2024 – Present

- Leading 4 students in the development of a full stack application for the Talent and Acquisitions team at Fidelity to provide recommendations on future placements of interns in the firm.
- Leveraging ML models to compute the recommendations and integrating the results into PowerBI dashboards.
- Tech stack used is Angular.js, Java, Spring Boot, PostgreSQL, Oracle DB, Power BI, and Python (scikit-learn).

MTC Scheduler Worcester, MA

WPI Department of Mathematical Sciences

*December* 2023 – *June* 2024

- Pitched and secured funding for developing an end-to-end application for the university's Math Tutoring Center (MTC).
- Built a preference-based matching algorithm to schedule tutoring shifts of Teaching Assistants (TAs).
- Projected to save the math department 14 hours of administrative work per semester.
- Tech stack is React, Node.js, Python, and Flask, and deployed to WPI's internal Linux server.

## Software Engineering project

Worcester, MA

Brigham and Women's Hospital, Boston

*March* 2024 – *May* 2024

- Led 10 students in the development of a full-stack application for WPI and the hospital to build kiosks, used by guests for navigation information and staff for service requests.
- Tech stack is React, Express, Prisma ORM, Tailwind CSS, AWS, Docker.

## **EDUCATION**

## **Worcester Polytechnic Institute**

Worcester, MA

B.S. Computer Science & B.S. Data Science

*August* 2021 – *May* 2025 (*expected*)

GPA: 3.97

• Relevant Courses: Software Engineering, Machine Learning, Artificial Intelligence, Database Systems, Big Data Management, Data Mining, Modeling and Data Analysis, Discrete Mathematics, Operating Systems

#### ACTIVITIES & LEADERSHIP

Association for Computing Machinery (ACM) -WPI Chapter

Worcester, MA

Worcester, MA

President

February 2024 – Present

**Upsilon Pi Epsilon - Computer Science Honors Society** *Chapter Member* 

January 2024 – Present

# SKILLS

Programming Languages: Python, Java, TypeScript, SQL, HTML, CSS, JavaScript, R

Software Framework: React, Spring Boot, Express.js, Tailwind CSS, Flask, Prisma ORM, REST APIs, Hadoop, Spark

Development Tools: Git, Docker, Kubernetes, AWS, GitHub Actions, Jenkins, Android Studio, GitHub Copilot

**Databases:** PostgreSQL, MongoDB, Oracle, Apache Ignite, Redis, AWS DynamoDB