Ananya Tyagi

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EDUCATION

New Jersey Institute of Technology ***Bachelor of Science, Computer Science*** ***Expected Graduation: 2027***

Albert Dorman Honors College – **Full tuition merit scholarship** – Dean's List 2024

Relevant Coursework: *Introduction to Machine Learning, Introduction to Data Science, Programming Language Concepts, Foundations of Computer Science I, Data structures and algorithms, Internet Applications, Linear Algebra, Calculus-Based Probability and Statistics*

WORK EXPERIENCE

BMW IT Innovation Intern | *BMW Manufacturing Co. LLC* ***January 2025 – Present***

- As a member of the Innovation team, research emerging technologies, establish BMW-specific use cases, develop a proof of concept, and pitch to interested parties and stakeholders.
- Relevant Topics: Machine Learning, VR/AR, Robotics, Edge-Computing, Automation, Tensorflow, Pytorch, HuggingFace.

Undergraduate Research Assistant | *NJIT Department of Data Science: Bader Lab* ***September 2024 – Present***

- As an introduction to graph theory, formulated an algorithm for the **Princeton** University Feedforward Sort with Minimum Feedback challenge by leveraging a mixture of established graph sorting algorithms and research papers.
- In **2-member student-led team** researched and constructed a literature review of existing Motif Census algorithms with a biological focus, in partnership with **Harvard** University Neuroscientists.
- Utilized parallel computing software package, Python, and C to aggregate test datasets, establish benchmarks, and test edge cases for parallelized motif census algorithm, in conjunction with publishing a research paper under a Ph.D student.
- Dedicated **7+ hours** per week to team-wide meetings, research, and development.

AI Product Development Intern | *Aersys Inc.* ***May 2024 – August 2024***

- As Project Lead, led the startup team in formulating, developing, and launching a SaaS product complementary to Aersys' offerings, resulting in a diversified product portfolio for current and future investors by leveraging **OpenAI API, AWS, Github**, security techniques, and product management tools.
- Strengthened startup and emphasized profitability through the implementation of essential business building blocks such as Business Model Canvases, Customer Discovery, Trend Analysis, **Financial Statements**, Cap Tables, Pitch Presentations, **LEAN methodologies**, and more.
- Negotiated a high valuation from the venture capitalist team and leveraged team expertise, competitor benchmarking, and negotiation techniques to boost the product portfolio and secure a substantial share of equity in my venture.

Secretary | *Association of Computing Machinery: NJIT Chapter* ***November 2023 – December 2024***

- Increased funding by **5%** and boosted sponsor retention rate through collaboration with Ying Wu College of Computing administration to secure sponsors from industry leaders like AWS, Google, and Crowdstrike or public events such as Hack NJIT and Jersey CTF.
- Collaborate with ACM Eboard to lead General Body meetings and implement improvements, resulting in boosted attendance, while leveraging Google Workspace for seamless collaboration.
- Host office hours **3+** hours per week to manage the inner workings of the organization and meet with members and administrators.

SKILLS

Technical: Java, Python, C/C++, Web Development (HTML/CSS, TypeScript, JavaScript), MySQL, Github, Visual Studio Code
Soft: Project Management, Teamwork, Problem Mitigation, Lean & Agile Methodologies, Writing, Dynamic Learner
Languages: Spanish, Hindi

PROJECTS

ProcrastiNot | *GirlHacks 2024*

- In **24-hour** competition, utilized **Web Scraping** tool, **Chrome Extension API**, and **OAuth** to create the user interface, scraping tool to read user canvas content, and aided with prompt engineering portion of communicating with the **Gemini LLM**
- An AI-powered productivity tool that takes the course, assignment, and due date information from canvas and embeds intelligently created Google Calendar events for when to start assignments. Accounts for other factors such as sleep schedule, classes, and skill.

AquaRisk | *HackNJIT 2023*

- With a 4-student team, dedicated 24 hours to conceptualize and create AquaRisk, a nautical-themed risk zones detection solution, utilizing **HTML, CSS, Javascript, GeoCode.Api, CO-OPs API, Github**, and employing the design thinking methodology for efficient task delegation and coordination.

Stars Within Reach | *Innovation for Women, MIT Solve*

- With a 3-student team, conceptualized, designed, researched, and programmed a social innovation app using **React Native, HTML, CSS, and JavaScript**
- Promote free and accessible virtual educational access for women-identifying and LGBTQ+ students in high-need and diverse areas with educators and professionals.

LEADERSHIP/ORGANIZATIONS

Historian | *Alpha Kappa Psi* Professional Co-ed Business Fraternity ***April 2024 – present***
Director of Advocacy | *NJIT Honors Hall Council* ***September 2023 – May 2024***
Programming Committee Chair | *WWP People of Color Advocacy* ***December 2020 – May 2023***