

MANMEET SINGH DANG

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EDUCATION

Purdue University

MS in Computer Science

West Lafayette, IN

Graduation Date: May 2027

- **Coursework:** Artificial Intelligence, Computer Networks, Algorithms, Agentic AI, NLP, Motion Planning

University of Wisconsin-Madison

Bachelor of Science Majors: Computer Science & Data Science

Madison, WI

Graduation Date: May 2023

- **GPA:** 3.7/4.0 | **Awards:** Dean's List (4x); Philip Desch Scholarship
- **Coursework:** Machine Learning (Grad), Blockchain, Algorithms, Operating Systems, Cryptography, AI, Computer Networks, Advanced Data Structures, Discrete Math, Multivariable Calc and Linear Algebra, Microeconomics, Biochemistry
- **Leadership:** Badger Cricket Club - Cofounder; Sikh Student Association (Outreach Chair 2022)

WORK EXPERIENCE

PricewaterhouseCoopers (PWC)

Cybersecurity Analyst (Prev. Intern - June 2022 - Aug 2022)

Washington DC

Aug 2023 - Dec 2023

- Designed and configured ForgeRock Identity and Access Management (IAM) solutions, including Identity Gateway and Access Manager, to streamline user authentication, single sign-on (SSO), and role-based access control (RBAC), improving system security and reducing access-related incidents by at least 50%
- Led a cybersecurity transformation project to optimize the M&A process, strengthen security protocols, and ensure regulatory compliance for a Fortune 500 company
- Performed API Testing using Insomnia and caught 18 application portal protocol errors

DoIT @ UW-MADISON

Enterprise Integration Intern

Madison, WI

June 2021 - August 2021

- Integrated Github Actions and built CI/CD Pipeline within DoIT code repository to automatically test and build code contributions
- Work with modern DevOps Technologies and Google Cloud to integrate campus wide applications and resolve issues which reduced the campuswide storage footprint from 3.8PB to 0.8PB

Department of Computer Sciences, UW-MADISON

Peer Mentor for Data Structures Courses (Java Programming II)

Madison, WI

Jan 2021 - May 2021

- Guided students through weekly Java programming assignments, covering Object-Oriented Design, Data Structures, and debugging, while facilitating problem-solving sessions to reinforce core concepts

PROJECTS

IDEAS LAB - Purdue University

Oct 2025 - Present

- Developing an autonomous UAV-UGV natural language collaboration system using LLMs, VLMs, and computer vision to enable navigation and goal-oriented behavior in unstructured environments, leveraging terrain for strategic movement
- Implementing intelligent control algorithms using reinforcement learning to improve UAV-UGV communication for cooperative path planning to determine the optimal UGV navigation under hostile or uncertain terrain conditions

NLP Research Analysis

- Developed Python-based analysis framework to evaluate LLM fine-tuning methodologies, examining neural network alignment strategies, training dataset optimization, bias detection algorithms, and performance benchmarking for transformer models including GPT-4 and LLaMA

Blind Man's Bluff

- Developed an ML Android Application which can sense the surroundings of a blind person and help to navigate through a crowded area. It uses real-time object detection to alert the user through vibrations followed by audio feedback. This group project was done for MIT Hackathon 2020

Dynamic Memory Allocator

- Developed a custom Heap Dynamic Memory allocator in C on Ubuntu Linux Machine. It interacts with the OS to perform operations like allocation, deallocation, and coalescing to merge free memory blocks, improve memory utilization and reduce fragmentation

SKILLS

Technical Skills: Python, Java, C, C++, R, Tensorflow, Pytorch, Dart, HTML, CSS, JS, AWS, Git, SQL, Postman

Certifications: AWS Cloud Practitioner (Sept 2023) | NVIDIA Networking | Stanford Machine Learning | Blockchain (2024)