# Ankita Vilas Pimpalkar

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# **EDUCATION**

**George Washington University** 

Washington, DC, USA

Masters in Computer Science

Aug 2024 - Present

Coursework: Advanced Software Paradigms, Design and Analysis of Algorithms, Computer System Architecture, Software Engineering, Data Mining, Cloud Computing

**Chandigarh University** 

Chandigarh, India

Bachelor of Engineering in Computer Science and Engineering

Aug 2016 – Aug 2020

Coursework: Data Structures and Algorithms, Programming in Java and Python, RDBMS, Analog and Digital Electronics, Big Data Analytics, Data Warehousing, Machine Learning, Artificial Intelligence, Discrete Mathematics, Operating Systems, Management Information System

#### PROFESSIONAL EXPERIENCE

AI/ML & Model-Based Systems Engineering Intern, George Washington University

Feb 2025 – Present

- Developing AI/ML-based applications for a Raspberry Pi-based sensor system, integrating NLP, deep learning, and computer vision for real-time sensor analysis and edge computing using TensorFlow, PyTorch, OpenCV, and Scikit-learn.
- Collaborating with Prof. Eric Dano to integrate Siemens Model-Based Engineering (MBE) tools such as System Modeling Workbench and Teamcenter, supporting structured system design and API development.

Full stack Developer, Freelancing (Stealth Startups - Alternative Structure Group, Friends-Square, Go-Scale)

Aug 2022 - May 2024

- Led **technical roadmap development** and provided **strategic recommendations** on technology stacks for **scalability**. Built landing pages and **optimized databases** for Alternative Structure Group (fintech startup), improving **user engagement by 40%** and **reducing backend processing time by 30%**.
- Accomplished new features and optimized backend functionality for Friends-Square, a New Delhi-based psychology firm, improving system responsiveness by 35% and enhancing overall user experience.
- Offered database solutions for Go-Scale's client, improving platform performance and boosting site traffic by 20%.

Programmer Analyst Trainee, Cognizant Technology Solutions, Pune, India

June 2021 - July 2022

- Deployed and maintained 150+ enterprise applications using PowerShell scripting, SCCM deployment, SCCM driver packaging, and Intune packaging, achieving a 75% deployment success rate.
- Automated silent installations by using VB-Scripts and Batch-Scripts for applications such as Adobe Acrobat, Microsoft Office Suite, AutoCAD, and Citrix Receiver, reducing installation time by 50%.
- Managed large databases with over 10,000 records, improving data integrity by 70% and ensuring 60% system uptime.

Web Developer Intern, Root Kings, Pauni, India

Nov 2020 - May 2021

- Developed Superfan-App, a celebrity game-based social media platform, using JavaScript, Vue.js, and CSS, enhancing user experience and engagement.
- Optimized responsive web design and cross-browser compatibility, leading to higher user engagement.

PHP Developer Intern, Talent Anywhere Services, Pune, India

Aug 2020 – Nov 2020

- Designed and created **high-performance** platforms such as Gujarati Sahitya Forum and NS4ED using PHP and CodeIgniter, reducing load times by 40% and **enhancing** user engagement by **30%**.
- Executed critical features such as user authentication and content management systems, increasing platform security and usability by 25%.

Junior Java Developer Intern, Maxgen Technologies, Pune, India

Jan 2020 - Jun 2020

- Devised responsive web pages using Java, HTML, and CSS for BookMyMovie, increasing website responsiveness by 20%.
- Conducted code reviews and debugging, ensuring a 90% reduction in system errors and smooth platform operation.

PHP-Trainee, Centre for Development of Advanced Computing, Chandigarh, India

May 2018 - Jun 2018

 Developed a PHP-based ticket booking system, optimizing SQL queries for high-efficiency data retrieval, completing the project 15% ahead of schedule.

### SKILLS AND TECHNOLOGY

Languages: Java, Python, PHP, PowerShell Scripting, HTML, CSS, JavaScript, SQL

Databases & Frameworks: MongoDB, MySQL Workbench, CodeIgniter (PHP Framework), Vue.js

**Data Science & Machine Learning:** Data Analysis Libraries - Pandas, NumPy, Matplotlib; Machine Learning - Linear and Non-Linear Models, Random Forest, SVM, Neural Networks, Unsupervised Methods (Dimensionality Reduction, Clustering)

Development & Deployment Tools: Figma, Visual Studio Code, MS Office, SCCM, Intune, GitHub

Soft Skills & Leadership: Analytical Thinking, Cross-Functional Collaboration, Process Optimization, Strategic Planning, Decision-Making

## **PROJECTS**

- Handwritten Character Recognition: Developed an AI-based HCR system using Neural Networks and Python, achieving 70% accuracy on a benchmark dataset.
- Personal Assistant: Built a standalone NLP-powered assistant enabling voice-based task creation and event scheduling for improved user automation.