

Arnav Pal

Germantown, MD | 240-316-5525 | arnavpal2003@gmail.com

EDUCATION

University of Maryland, College Park, MD

Graduation date: May 2025

College of Computer, Mathematical and Natural Sciences || Robert H. Smith School of Business

Major: Bachelor of Science, Computer Science

Minor: General Business

Linkedin: www.linkedin.com/in/arnav-pal-969350215

GitHub: <https://github.com/arnavp13>

Portfolio: <https://arnavp13.github.io/Portfolio/>

TECHNICAL SKILLS

- **Programming Languages:** Java, JavaScript, Python, C, HTML, MATLAB, R, Ruby, Ocaml, Node.js, CSS, SQL, MS Office, Flask
- **Relevant Courses:** Object Oriented Programming, Data Structures, and Algorithms, Computer Systems, Discrete Structures, Organization of Programming Languages, Introduction To MATLAB, Calculus I & II, Applied Probability and Statistics, Linear Algebra, Intro to Data Science, Web Application Development

CERTIFICATIONS

Amazon Web Services Certified Solution Architect - Associate

Amazon Web Services Certified Developer - Associate

- Have a knowledge of designing and implementing scalable and cost-effective cloud solutions on the Amazon Web Services platform
- Proficient in architecting highly available and secure infrastructure, leveraging various AWS services to meet diverse business needs
- Skilled in optimizing application performance, cost management, and cloud best practices to drive operational efficiency
- Proficient in writing code for serverless applications, leveraging AWS services to enhance application functionality and performance.
- Experienced in debugging and optimizing cloud applications, implementing CI/CD pipelines, and using AWS developer tools to streamline the development lifecycle.

EXPERIENCE

Elaunchers | Intern

June 2022 – July 2023

- Redesigned client websites using HTML; Jasmine/Karma used for testing
- Designed Excel Profit and Loss spreadsheets to manage and update the company's financial transactions
- Performed data cleaning via HubSpot to extend clientele network
- Utilized telemarketing to reach out to clients

PROJECTS

Weather Web Application | *JavaScript, CSS, HTML, MongoDB, RESTful API, AWS S3*

- Implemented user authentication, real-time weather updates, and data retrieval based on city input using Express, MongoDB, and EJS templating
- Utilized body-parser middleware for form handling, configured environment variables with dotenv, and deployed with configurable port settings as well as a hosting a static website through an Amazon S3 bucket.
- Integrated MongoDB Atlas for scalable cloud database management, ensuring efficient data storage and retrieval for login credentials and weather data

Predictive Analysis of FAANG Companies | *Python, HTML*

- Developed a predictive model using Python and machine learning (Linear Regression) to forecast stock values and fiscal annual revenue for Meta, Amazon, Netflix, Apple, and Google from 2013 to 2024, achieving high accuracy as measured by MSE and R-squared scores
- Conducted extensive data analysis by collecting, cleaning, and visualizing historical financial data, utilizing tools like Pandas, NumPy, Matplotlib, and BeautifulSoup to uncover trends and growth patterns
- Provided actionable insights for investors and stakeholders through clear visualizations and comprehensive analysis, enabling informed decision-making based on predicted financial performance
- Hosted the results on Git Pages.

Breaking Bad Quote Guessing Game | *Python, Flask, MongoDB, HTML, Javascript, AJAX, RESTful API, CSS*

- Created a dynamic "Breaking Bad" themed game where users guess the author of a randomly generated quote, with interactive features such as word blanking and user input validation with a custom-designed interface.
- Utilized AJAX with Axios to handle asynchronous requests, ensuring a seamless user experience.
- Employed a login system to allow for users to store their scores, storing credentials in MongoDB.
- Set up a Linux-based EC2 instance, Configured security groups for appropriate port access, Configured domain routing and SSL certificate for HTTPS

Portfolio Website | *HTML, Javascript, CSS*

- Designed and developed a responsive personal portfolio website using HTML, CSS, and JavaScript.
- Implemented smooth scrolling navigation and responsive design for cross-device compatibility.
- Showcased key projects with detailed descriptions, images, and links to GitHub repositories.
- Integrated external links to LinkedIn and GitHub profiles using Font Awesome icons and ensured accessibility.

Blackjack | *Java*

- Performed operation on a random number generator to create and shuffle a deck on Eclipse
- Manipulated ENUMs to assign card suits and values
- Created a reader to perform complex operations to determine player and dealer card values
- Ensured system efficiency through the creation of JUnit tests

AWS APAC Solutions Architecture virtual experience program on Forage | *AWS*

- Designed a simple and scalable hosting architecture based on Elastic Beanstalk for a client experiencing significant growth and slow response times.
- Described my proposed architecture in plain language ensuring my client understood how it works and how costs will be calculated for it.

UMD Smith Undergraduate Student Association, Bitcamp Hackathon, ACM-ICPC, FRC, UNICEF, Google Code Jam