

PRANAV NAIR

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EDUCATION

- **The University of Texas at Dallas** Richardson, TX
Bachelor of Science in Computer Science with Honors, GPA - 3.83/4.0 Aug 2020 - May 2024
- **Coursework:** Computer Architecture, Data Structures & Algorithms, Operating Systems, Database Design, Machine Learning

SKILLS

- **Languages:** C#, Java, C++, Python, C, SQL, JavaScript, Lua, Verilog, Bash scripting
- **Database:** Microsoft SQL Server, MySQL, PostgreSQL, MongoDB
- **AI/ML:** Matplotlib, Pandas, scikit-learn
- **Framework:** Angular, ASP.NET Core, ReactJS, FastAPI
- **Security Tools:** Redgate, Dynatrace, BurpSuite, Kali Linux tools, Metasploit
- **Cloud/Other Tools:** Azure DevOps, Jira, Bitbucket, Git, Gradle

EXPERIENCE

- **Deloitte Tax LLP** Dallas, TX
Software Engineer Jul 2024 - Present
 - Software Engineer for the Internet Partnership Allocation and Compliance System (iPACS™) tax solution for partnerships.
 - Used ASP.NET Core, SQL Server, Angular to provide CI/CD software development through maintenance and bug fixes.
 - Utilized Azure DevOps to deploy pipeline releases for continuous build developments to the iPACS software.
- **Charles Schwab** Jersey City, NJ
Software Engineer Intern Jun 2023 - Aug 2023
 - Independently designed, programmed, and rigorously tested a Java application to strengthen security measures for a leading vendor collaborating with Schwab, resulting in a 23% increase in zero-day vulnerability detection.
 - Developed RESTful API calls to efficiently retrieve security-related data and execute commands through a command-line interface (CLI), resulting in a 30% reduction in backend dependency.
 - Implemented an algorithm for data pre-processing and the selection of important data fields, increased the data quality by 25%, and streamlined the seamless transmission of Points of Interest (POI) data to a Confluence server dashboard.
- **Brown & Brown Insurance Inc.** Daytona Beach, FL
IT Intern Jun 2022 - Aug 2022
 - Architected and deployed a web application, using JavaScript, Articulate Storyline, and Adobe Illustrator within an Agile framework, to automate the new hire onboarding process of 3k employees per year.
 - Engineered SQL queries in conjunction with PowerBI to analyze and extract valuable business insights from complex datasets, resulting in an 18% increase in operational efficiency through data automation.

PROJECTS

- **Security Vulnerabilities Detection** Sep 2022 - Dec 2022
Linux, ERLKing, Joern, C, C++
 - Applied the ERLKing vulnerability scanner to identify software vulnerabilities by pinpointing Points of Interest (POIs) in the source code, identifying at least 3 security concerns per data point.
 - Transformed code into Code Property Graphs (CPG) used DWARF memory layout data to generate a log file.
 - Methodically cross-referenced 125 POIs in the C++ source code using the ERLKing vulnerability scanner, filtering out false positives, and pinpointing vulnerabilities with precision.
- **Intelligent Password Estimator** Feb 2022 - May 2022
Python, OpenAI GPT-3, YAKE!
 - Programmed Python to collect, clean, and preprocess 1M data rows from web scrapping, improving the accuracy by 10%.
 - Implemented a keyword extractor to identify popular keywords within the dataset.
 - Leveraged the GPT-3 machine learning model to generate passwords using 15k popular keywords, resulting in a 35% improvement in guess accuracy.

LEADERSHIPS

- **Director of ACM Research:** Association for Computer Machinery (ACM) UTD

HONORS AND AWARDS

- **Best Research Project Award:** ACM Research
- **Outstanding Performance Award:** CodePath Cybersecurity
- **Collegium V Honors:** The University of Texas at Dallas
- **Academic Excellence Award:** The University of Texas at Dallas