Bidur Pantha

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Education

- **University of Pennsylvania - School of Engineering and Applied Sciences** — Philadelphia, PA
  Master's - Computer and Information Technology — *January 2022 - May 2023*
  Courses: *Data Structures and Software Design, Algorithms and Computation, Software Development, Discrete Mathematics, Computer Systems Programming, Database and Information Systems, Big Data Analytics, Artificial Intelligence*

- **Arizona State University - School of Molecular and Life Sciences** — Tempe, AZ
  BS - Biomedical Sciences, Minor in Biochemistry; Barrett the Honors College — *August 2017 - May 2021*
  Courses: *Statistics, Calculus, Physics, Research Methods, Technology and Society*

Technical Skills

- **Languages**: Python, JavaScript, JAVA, C
- **Database**: SQL, MongoDB, Neo4j
- **Web Frameworks/Libraries**: Node.js, Express.js, React.js
- **Data Frameworks/Libraries**: Pandas, Sklearn, NumPy, Seaborn, Matplotlib, PySpark, PyTorch
- **Cloud Technologies**: AWS(RDS, S3)
- **Tools**: Docker, GitHub, Tableau, Excel
- **IDE/Environments**: Datalore, Jupyter, Visual Studio, InteliJ IDEA, Eclipse, PyCharm, DataGrip, Compass

Selected Projects

- **Attrition Predictive Analytics**: May '23
  - Utilized IBM HR Analytics Employee Attrition and Performance dataset to gain insights into factors contributing to employee attrition
  - Machine learning models, including Random Forest, Logistic Regression, and Neural Networks, were used to identify significant factors contributing to employee attrition. Ensemble methods like Gradient Boosting Trees were used to improve the accuracy of predictions
  - End goal was to provide data-driven insights to HR departments and management to improve employee retention and reduce turnover costs
  - Random Forest model allowed us to predict the probability of an employee voluntarily resigning with 91.8% accuracy
- **NBA Reference**: May '23
  - Collaborated with a team of four to develop a dynamic full-stack web application, providing users with advanced NBA team and player statistics analysis
  - Employed React.js and Material UI for front-end development, with Node.js and Express.js powering the server-side, and an MySQL database supporting complex queries which were optimized to run 95% faster
  - Utilized entity-relationship diagrams to plan and design database

Experience

- **School of Engineering, UPenn** — Philadelphia, PA
  Teaching Assistant/Academic Coach (Part-time) — *August 2022 - Present*
  - Provided support to students in the *Intro to Software Development* course for the CIT program at Penn, helping them grasp key concepts and enhancing their software development skills
  - Held information sessions on program/course resources and helped students with career counseling
  - Contributed to the growth of incoming master's students and helped ease the transition into a new program

- **CodePath** — Remote
  Technical Interview Preparatory (Part-time) — *August 2022 - December 2022*
  - Attended thrice-weekly sessions with industry professionals to gain expertise in data structures and algorithms, expanding my knowledge of the industry as a wholes
  - Engaged in collaborative pair programming sessions with fellow students, tackling complex algorithmic problems in the style of LeetCode, sharpening problem-solving skills and teamwork
  - Consistently completed weekly coding challenges, reinforcing and enhancing my coding abilities, as well as improving my efficiency and adaptability in problem-solving scenarios

- **Essential Scribe** — Phoenix, AZ
  Medical Scribe (Part-time) — *June 2021 - December 2021*
  - Provided real time medical documentation for physicians at Ironwood Cancer and Research Centers. Organized patient charts in a electronic medical record (EMR) by recording laboratory, imaging, and pathology reports
  - Reported any medical data discrepancies to physicians, contributing to accuracy in patient charts
  - Improved physician workflow to allow providers to spend less time documenting and 50% more time with patients, ultimately increasing patient satisfaction