Prithvi Kota

408-398-7813 | prithvikota96@gmail.com | linkedin.com/in/prithvi-k/ | github.com/prithvi002

EDUCATION

Virginia Tech   Blacksburg, VA
Master's in Computer Science: **GPA: 3.96/4**   *Jan 2023 – current*

Indian Institute of Technology, Madras   Chennai, India
Bachelor's of Technology in Electrical Engineering   *Jul 2013 – May 2017*

PROFESSIONAL EXPERIENCE

ARC Visualization Intern   May 2023 – Jan 2024
ARC Lab, Virginia Tech   *Blacksburg, VA*
- Designed and developed a JavaScript-based 3D simulation model project funded by ONR and NSF, aiding in the simplified understanding of wireless concepts, resulting in a 2x increase in course participation
- Led the conceptualization and execution of interactive exercises, enabling smooth parameter manipulation and rapid visualization of effects, driving a 50% decrease in response time and enhancing the learning experience.

Software Engineer   Oct 2020 – Dec 2022
Infelearn   *Remote, India*
- Designed and built a dynamic push notification system customized for users, leading to a notable 2.5x surge in classroom engagement, employing Kafka to enable seamless real-time updates
- Leveraged the HyperLogLog algorithm in the design and implementation of a memory-efficient view count system for videos and posts, achieving a substantial reduction of memory usage to 0.5%
- Enhanced user account security through the incorporation of two-factor authentication, utilizing Twilio API for SMS authentication, and integrating OAuth 2.0 services for login functionality

Software Engineer   Jul 2017 – Oct 2018
Amada Soft, India   *Chennai, India*
- Engineered and automated a QA testing framework for a CAD/CAM software that led to a significant reduction in weekly workload by 70 hours through the implementation of multithreading and SIMD methodologies.
- Reduced bending sequence extraction time by 200% by crafting and developing an interactive platform for advanced similar part search algorithm, enabling visualization of related parts and extraction of bending sequences.

PROJECTS

ShoreSync | *Graduate Assistant, Virginia Tech*   Jan 2024 – current
- Formulating an app for an NSF-funded project at VIMS, using citizen science to enhance shoreline data collection by 50x and enable citizen-driven GIS updates for informed shoreline management by local and state authorities
- Managing a team of 4 to develop a prototype application using agile strategies for shoreline data and image collection with tagged GPS coordinates, aimed at reducing costs by 3x and validating field data

Linear Quadratic Games Analysis | *Graduate Research Assistant, Virginia Tech*   Mar 2023 – Dec 2023
- Devised a novel algorithm that enhanced comprehension of linear-quadratic network games with strategic complements, transforming them into distance-minimizing quadratic programming problems
- Strengthened research efficacy with 30+ Python simulations, significantly reducing theorem testing and validation time by 20 hours per week in the domains of game theory and graph theory

Mass Scale Web Crawler Application| *Intern, IFMR Capital*   May 2016 – Jul 2016
- Built a web crawler extracting 1M+ words daily from newspapers aiding risk assessment and portfolio management
- Reduced processing time by 2x and improved data accessibility through parsing algorithms and db integration
- Deployed ML classifiers with 95% accuracy for news analysis, leveraging Google API for text translation, and R Shiny for visualization, including GIS mapping for spatial representation

TECHNICAL SKILLS

Languages/Database: Java, JavaScript, C++, Python, C#, R, MongoDB, Redis, MySQL, MATLAB
Tools & Frameworks: Express.js, SpringBoot, Spring, node.js, Kafka, Docker, Prisma, X3DOM, MFC, Git, Docker, VS Code, Visual Studio, PyCharm, IntelliJ, Eclipse
Libraries: React, Numpy, Pandas, Scikit-learn, SIMD, Shiny, JUnit, DirectX

ACHIEVEMENTS

All India Rank 31 : UPSC Indian Engineering Services among 0.2 million+ applicants
All India Rank 46 : Graduate Aptitude Test in Engineering among 0.8 million+ applicants
All India Rank 239: IIT Joint Entrance Examination among 1.4 million applicants
Chartered Financial Analyst(CFA) Level I: Cleared June 2018