# Vamsidhar Reddy Bada

[vamsidharreddybada@gmail.com](mailto:vamsidharreddybada@gmail.com) | 352-327-1774 | [linkedin.com/in/vamsidharbada](https://linkedin.com/in/vamsidharbada) |Gainesville, FL

## EDUCATION

**University of Florida, Gainesville, Florida**                                                    **August 2019 - May 2021**
*Master of Science in Computer Science*                                                               GPA: 3.77/4.0

**Vellore Institute of Technology, Vellore, India**                                               **July 2012 - May 2016**
*Bachelor of Technology in Computer Science and Engineering*                            GPA: 3.97/4.0

## PROFESSIONAL EXPERIENCE

**Empower**                                                                                              **McLean, VA**
*Software Engineering Intern*                                                                    August 2020 – Present

- Automated the refund system and credits system to improve the customer support response times by 80%.
- Incorporated gender specific ride dispatches to allow passengers to choose drivers based on gender, which increased female and LGBTQ passenger count significantly.
- Fixed race conditions with optimistic and pessimistic locking strategies to improve the predictability of the application.

**TerraPay**                                                                                         **Bangalore, India**
*Senior Software Engineer*                                                                       August 2016 - July 2019

- Created **financial accounting system** for TerraPay which records, monitors, and maintains fund balances of 50+ partners. Ledger module processed over a million transactions with 100% correctness. *(Used Java, JDBC, PostgreSQL, Multi-threading, REST API).*
- Designed & developed a **generic API parser** to handle any data format. Improved request processing times by 60% by using strategy design pattern. *(Used Java Reflection API, XML, JSON, Strategy Pattern).*
- Coordinated with teams from **US, UK & Africa** accounting for projects worth over $1M. Managed 10+ global financial leaders like Western Union and integrated into TerraPay's financial network. Entrusted as a technical point-of-contact and engaged in direct communication with clients for partner integrations.
- **Name Matching Algorithm**: Designed & developed name matching algorithm to get similarity of two given names. This reduced transaction reversals by 80% & also used in AML validations.
- **Partner Integrations**: Led and redesigned pipeline to expand frontline capabilities exceeding integrations targets by 40% in 4 months and secured 10 new clients; facilitated on-boarding of clients in collaboration with over **20 clients**.
- Developed & responsible for the **reporting module** that manages transaction, reconciliation, and ledger reports. *(Used Spring MVC, Hibernate, CRON).*
- Led a team of 5 to identify and improve/fix code quality, code smells, security issues leading to **grade A code base**.

## ACADEMIC PROJECTS

- **Database Implementation**: Designed and implemented a single-user database management system that supports a subset of SQL and basic relational algebra operations. Implemented multiple data store interfaces using heap, sorted file and B+ tree. Used C++ for development, valgrind for memory debugging, memory leak detection, and profiling.
- **Discover Power**: Developed a **react native app** for android and iOS and used Tableau for visualization to compare individual's power consumption to the average consumption in locality with similar households. Hack for **Swamp Hacks VI held by MLH**.
- **Task Scheduler for Construction Company**: Built a CLI application to schedule workers & keep track of buildings under construction. Used *min-heap* for maintaining priority of task and *red-black trees* for searching.
- **Group communication simulator for distributed network**: Implemented an asynchronous gossip algorithm for group communication and push sum algorithm for aggregate computation in distributed network with various topologies.

## LEADERSHIP

- **TerraPay**: Coordinated as interviewer at recruitment drives; Mentored in the 'Buddy Program' to aid new recruits.
- **SKY Club at UF:** Volunteered for organizing happiness retreat events with 100+ students.
- **VIT:** Headed a team of 100 for 6 months and administered logistics for 100+ events at a college cultural festival – RIVIERA.
- **Social Service:** Taught Math and Science to 100+ underprivileged students in Tamil Nadu, India, through NSS.

## ACHIEVEMENTS

- **Achievement Award:** Awarded $4500 scholarship towards tuition, Aug 2019.
- **Represented TerraPay's Technical team** with CTO for GIMAC conference in Cameroon, Mar 2019.
- **Guest Lecture:** Delivered a lecture on compilers & Just-in-time compilation at VIT Vellore, Nov 2017.
- **Chess Champion:** Won multiple intrastate chess tournaments, rated 2000+ in chess.com.

## TECHNICAL SKILLS

- **Languages:** Java, C++, C#, F#, Python, JavaScript, SQL, Shell.
- **Frameworks:** Spring Boot, Spring MVC, Hibernate, Node JS, Flask, Django, Bootstrap, React Native, Akka Framework
- **Database:** PostgreSQL, MySQL, MongoDB**,** Cosmos DB.
- **Tools:** Git, SVN, Apache Kafka, RabbitMQ, Docker, Kubernetes, Vim**,** Valgrind.
- **Other Skills:** Scrum & Agile Methodologies, Object-Oriented Programming, Algorithm Design, Software Development Life Cycle, Software Engineering, Design Patterns, RESTful API development, Android, iOS frameworks, Azure, AWS, Google Cloud**.**

[https://github.com/bvamc](https://github.com/bvamc) | [https://stackoverflow.com/users/7030357/vamsidhar](https://stackoverflow.com/users/7030357/vamsidhar) | [http://www.vamsidhar.online](http://www.vamsidhar.online)