# PRANEETH REDDY KOTHA

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# Experience

#### OneDrug | Software Developer Intern

Jun 2024 - present

- $\bullet$  Developed responsive and user-friendly interfaces using ReactJS and CSS, boosting user engagement by 25% and improving overall satisfaction through faster load times and intuitive navigation.
- Engineered scalable backend services with Node.js and Express, enhancing API response times by 30% and ensuring reliable data handling across multiple endpoints.
- Implemented MongoDB for data storage, optimizing the retrieval of user demographics, pharmacogenetic test results, and medication data, leading to a 25% increase in data processing efficiency.
- Collaborated with the QA team, utilizing Jest and Mocha for automated testing, reducing bugs by 20% and accelerating deployment timelines by 15%.
- Contributed to the development of RESTful APIs for seamless integration with third-party platforms, reducing data transfer latency by 15% and improving system interoperability.

#### Verzeo Edutech | Robotic Developer Intern

June 2020 - Aug 2020

- $\bullet$  Led the end-to-end development of 3 robotic products using Python and C++, reducing development time by 20% and enhancing product quality through efficient coding practices.
- Designed and implemented circuits using AutoCAD and Autodesk Tinkercad, integrating sensors, analog components, and microcontrollers, resulting in a 15% improvement in product efficiency.
- Developed IoT solutions by leveraging VHDL and PCB Design tools, enhancing hardware performance by 15% and enabling real-time data communication.
- Conducted rigorous testing and debugging with GDB and PyTest, identifying and resolving critical design flaws, which increased product reliability by 10%.

## **Projects**

- Designed an algorithm to enhance network recovery, integrating a custom A\* search and landmark selection based on node centrality. Improved pathfinding efficiency by 20% and achieved 85% accuracy in repair time predictions using a linear regression model. Reduced average execution time by 15% compared to standard algorithms.
- Implemented Impetus language with features like stack, type checking, and parsing. Created a cross-platform compiler and runtime environment using Python and SWI-Prolog for seamless execution on Mac and Windows.
- Created a Java application to determine the maximum number of available urinals while following social distancing rules. Applied regex for input validation and custom logic for urinal availability. Managed file outputs with versioning for accurate data handling and reporting.
- Used Python, pandas, NumPy, and machine learning for climate trend analysis, anomaly detection, and prediction; visualized data with Matplotlib to inform climate change assessments.

### **Technical Skills**

Languages: Python, Java, JavaScript, C, C++, SQL, MATLAB, MySQL, HTML, CSS

Databases: PostgreSQL, MongoDB, MySQL, DynamoDB

Tools: Git, Maven, Gradle, JMeter, Postman, AWS, GCP, log4j, IntelliJ, PyCharm

Frameworks/Technologies: REST, Web Sockets, Flask, Node.js, Express.js, React, Spark, Docker, Kubernetes, Jenkins

#### Education

### Arizona State University

August 2022 - May 2024

Master of Science in Computer Software Engineering

Arizona, United States

Relevant Coursework: Data Science, Advanced Data Structures and Algorithms, Software Requirements and Specifications, Languages and Programming Paradigms, Software Verification, Validation and Testing, Semantic Web Engineering, Game Programming and Design.

# Vellore Institute Of Technology

July. 2018 - May 2022

Bachelor of Technology in Electronics and Communication engineering, spec in IOT

Tamil Nadu, India

Relevant Coursework: Adv Micro-controllers and Embedded Systems, Object Oriented Programming(OOP), Cloud Computing and

Information Security, digital circuit design, Operating Systems, IOT system architecture.