

# SWAPNIKA DULAM

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## OBJECTIVE

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As a highly motivated individual with a passion for problem-solving and applying research skills, I am actively looking for opportunities to utilize my knowledge and expertise in a challenging work environment.

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## EDUCATION

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### **Master of Science in Computer Science, May 2024**

#### **The Pennsylvania State University, University Park, PA**

- GPA: 3.79
- Courses: Compiler Construction, Fundamentals of Computer Architecture, Operating systems, Pattern Recognition and Machine Learning, Program Analysis, Parallel Processors and Processing.

### **Master of Technology (M.Tech) in Computer Science (2016 – 2018)**

#### **JNTUH College of Engineering Hyderabad, Telangana, India**

- Percentage: 91.23 %
- Thesis: A Lightweight Encryption Scheme for CoAP Proxy in Internet of Things (IoT). (Research paper published in IJCSITR)
- Awarded “Topper” for securing highest marks in four consecutive semesters.

### **Bachelor of Technology (B.Tech) in Computer Science & Engineering (2013- 2017)**

#### **JNTUH College of Engineering Hyderabad, Telangana, India**

- Percentage: 86.68 %
- Project: Android App "e-deck"- used to store documents in one place.
- Project: Android App "Smart Location Reminder"- a location-based task reminder.
- Relevant Courses: Advanced Algorithms, Advanced Operating Systems, High Performance Computing, Parallel & Distributed Systems, Distributed Computing, Database Management Systems, Datamining and Data Warehousing, Web Mining, Web Technologies, Cyber Security, Computer Organization and Architecture, Computer Networks, Software Architecture and Design Patterns, Software Engineering, Software Testing Methodologies, Artificial Intelligence, etc.

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## EXPERIENCE

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### **Graduate Research Assistant | The Pennsylvania State University, University Park, PA (May 2023- Present)**

- Working in THiCC (The Human in Cognitive Computation) Lab under professor Dr. Christopher Dancy.
- Working on cognitive architectures in Malmo/Minecraft environment.

### **International Student Orientation Leader | The Pennsylvania State University, University Park, PA (March 2023- Present)**

- Ensuring incoming international Penn State students face smooth and hassle-free onboarding.

### **Software Engineer | Cotiviti, Hyderabad, Telangana, India (June 2018 – April 2022)**

- Designed fully distributed Restful API and Micro Services system, using Spring-Boot for backend, MongoDB aggregation pipelines for data handling, and Angular 9 with NgRx store for frontend.
- Developed four CPD suite applications, reducing policy selection process time for clients from 2 months to 30 minutes.
- Reduced legacy application load time by 80% by refactoring Java codebase with parallel processing.

- Transformed Scala code to Java code for microservice architecture, enabling efficient system integration and maintenance.
- Practiced SAFe in an agile environment, freeing up time for innovation and creative problem-solving.

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**Intern | Cotiviti, Hyderabad, Telangana, India (February 2018–April 2018)**

- Successfully developed a proof of concept (POC) to implement Single Sign-On (SSO) using OAuth2 in the organization, streamlining the authentication process for users.
- Deployed the application to Amazon Web Services (AWS), leveraging cloud infrastructure to improve accessibility and scalability.
- Gained Proficiency in utilizing project tracking and management tool JIRA, facilitating efficient collaboration and timely delivery of project milestones.

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**Intern | Being Zero, Hyderabad, Telangana, India (May 2016–July 2016)**

- Collaborated on the development of a social networking application using the MEAN stack, resulting in the creation of <https://mentorpick.com/>
- Skilled in Agile (SCRUM) and Test-Driven Development (TDD) development methodologies, adapting to various work environments and promoting efficient and high-quality product development.

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**SKILLS****Proficient in:**

Python, C, C++, Java 8, J2EE, Spring Boot, Angular 9, React, Git, MongoDB, Oracle 11g, MySQL

**Familiar with:**

| XML, HTML, CSS, JavaScript, Bootstrap, Express JS, NodeJS | Junit, Mockito, JPA, Hibernate| PostgreSQL | AWS, Azure| Sonar, Jenkins, Docker, Kafka, Maven| JIRA MS Office, MS Access, MS Excel

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**PERSONAL PROJECTS & INTERESTS**

- Game theory – by Stanford Online – Issued June 2023
- Diploma in Modern Applied Psychology -by Achology – Issued Apr 2020.
- Use Before – (Android App) Reminder to use perishable goods before the expiry date.
- Toss and Dice – (Android App) Simple toss and dice application.
- Ledger – (Android App) To track expenses monthly and draw graphs.
- Search bot – Crawl various websites to get information on a topic without duplication.
- Simple weather application with yahoo weather API.

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**ACTIVITIES & AWARDS**

- Presented at “2022 Global Sustainable Action Conference: It Starts with Us”
- Performance Excellence award, Cotiviti: 2021 Q3, 2020 Q2, 2019 Q1
- Secured Fourth Position in Hyderabad’s Best Coder – 1 (2016)
- Received CSSS scholarship for college and university students by MHRD 2013-2018 for securing marks in top 20 percentile in Andhra Pradesh.
- Best student for the year 2010, Topper of CBSE X board exam.

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**VOLUNTEERING EXPERIENCE**

- Director of Public Relations – Enactus, a sustainable entrepreneurial organization, PSU UP 2022-2023.
- Council member IGSA (Indian Graduate Student Association) 2022-2023.
- Volunteered for Fall Career Days 2022 at PSU UP
- Mentor at JNTUH Alumni coding club. (March 2017 – Present).
- Organized an event called TECHWIZ in technical fest “QUEST 2k16”.