Priyadharshini Ganeshkumar

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EDUCATION

University of California, Davis — Davis, CA
Master of Science - Computer and Information Sciences; GPA: 4.0/4.0 — Sep 2024 - Jun 2026 (Expected)

PSG College of Technology — Coimbatore, India
Bachelor of Technology - Information Technology; GPA: 9.51/10.0 — Jun 2022

SKILLS SUMMARY

- **Languages**: Python, Java, C++, PL/SQL
- **Frameworks/Tools**: Scikit-learn, TensorFlow, Pytorch, OpenCV, Parallel Programming, Django, Flask, AWS Docker, CUDA, BASH, Oracle, Couch DB, SQLite, GIT, HTML, CSS, REST API
- **Other skills**: Agile/Scrum, Software Engineering, Full-Stack Development

WORK EXPERIENCE

JP Morgan Chase & Co. — Bangalore, India
Software Engineer 1 — Aug 2022 - Jul 2024

- Led the application modernization by migrating from legacy VSI to a new data center, reducing batch processing time by **45-60 minutes** on downstream interfaces. Conducted **regression testing**, resolved critical issues, and validated batch operations post DNS switch.
- Optimized database management by migrating from PSI Infrastructure to in-house Oracle service **GOS**, delivering a **cost-effective** and **scalable** solution for the application's database requirements.
- Automated the deployment of **Control-M XML** in production using ITPAM, removing the dependency on manual uploads. Integrated a one-click solution in the **CI/CD** pipeline, reducing deployment time by **30 minutes**.

Software Engineer Intern — Jan 2022 - Jun 2022

- Developed and executed regression testing for core batch processes during Informatica decommission. Successfully migrated application to **SQL Loader**, resulting in significant cost savings of **$50,251** annually on software recovery.

PROJECTS

- **Pricing Comparison System for Food Delivery**: Developed a pricing comparison system by scraping data from platforms like DoorDash, UberEats, and Grubhub. Integrated sentiment analysis of restaurant reviews to help users identify the most cost-effective and preferred food options. (Mar '25)
- **Multi-label Chest X-ray Classification**: Designed and implemented a deep learning pipeline using ResNet50 and ResNext50 architectures in PyTorch to classify catheter positioning in chest X-rays. Leveraged NVIDIA GPUs with CUDA for accelerated training on a large-scale medical dataset, optimizing computational efficiency and model performance. Achieved 93% accuracy across 11 clinical classes, automating diagnostics and reducing manual intervention in radiology workflows. (Dec '24)
- **Framework for Product Recommendation**: Engineered a tool for the recommendation of the products using ML techniques like Matrix Factorisation (SVD) and Cosine Similarity. The tool utilizes content-based and collaborative filtering, incorporating a hybrid system to optimize efficiency. Built a user friendly e-commerce website with Flask and MySQL providing personalized recommendations. (Oct '21)

PUBLICATIONS

- **Quantum Cryptography**: A research on Quantum Cryptography and Computation, comparing it to traditional methods and addressing potential threats introduced by quantum cryptography. [Google Scholar link] (Sep '20)
- **Optimization of Service Recommendations**: Developed a novel recommendation system integrating Collaborative and Content-based filtering techniques, resulting in increased efficiency and accuracy. [ICEAT Conference] (Jun '22)

LEADERSHIP AND RECOGNITIONS

- Led **SEP Engineers Committee** at JP Morgan Chase for 200 newly joined engineers, organizing three flagship events, including the Tech for Social Good Hackathon and SEP Graduation: (Mar '23)
- Recognized in **Q1 SEP Appreciation Scroll** at JP Morgan for contributions to DC migration project: (Jun '23)
- Secured 1st place in **KRIYA** Coding Contest, an intercollegiate symposium conducted by PSG Tech, India: (Feb '20)
- Honored with the prestigious **Cultural Talent Search Scholarship (CCRT)** for Bharatanatyam by the Ministry of Culture, Government of India, recognizing exceptional talent in the performing arts: (Dec '18)

VOLUNTEER EXPERIENCE

- **Mentor at Youth Outreach Club**: Facilitated and led educational sessions for underprivileged students in grades 6–8 at PSG Trust, India. Played a key role in coordinating mentor-classroom assignments, enhancing the learning experience and fostering a supportive environment for the academic success of students.