

# ABHIJEET SANDIP PACHPUTE

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## SUMMARY

Adaptable computer science graduate student and software engineer capable of rapidly mastering new tools to build impactful solutions. Known for building scalable systems and optimizing workflows, automating decisions, and driving measurable product improvements. Recognized for strong problem solving skills, fast adaptation to new technologies, and clear communication of complex concepts to both technical and non-technical audiences.

## EDUCATION

### University of Utah

Master of Science in Computer Science

August 2024 - May 2026

**Relevant Coursework:** Graduate Algorithms (CS 6150), Deep Learning (CS 6353), Security & Privacy (CS 6495)

### University of Pune

Bachelor of Engineering in Computer Engineering

July 2019 - May 2023

**Relevant Coursework:** Object-Oriented Programming, Database Management, Data Structures & Algorithms, ML

## SKILLS

**Programming Languages:** Java, JavaScript (ES6+), Python, C++, TypeScript, React, Kotlin, HTML5, CSS3

**Frontend Technologies:** React.js, HTML5, CSS3, SCSS, Bootstrap, Tailwind CSS, Responsive Design

**Backend Technologies & Databases:** Node.js, Express.js, Spring Boot, RESTful APIs, MySQL, MongoDB, PostgreSQL

**DevOps & Cloud:** Git, GitHub, Docker, AWS (EC2, S3, Lambda), CI/CD Pipelines, RAG, Kubernetes, Agile

## EXPERIENCE

### Information Technology Specialist

University of Utah | VP for Research | Internship

June 2025 - Present

Salt Lake City, USA

- Administered research infrastructure across 4 departments that powered a **\$650M+** annual enterprise and deployed security solutions: **Tanium, BeyondTrust & Forcepoint** that reduced risk by **60%** and secured compliance with federal research data standards
- Formalized and co-authored **SOPs** for international loaner laptops and onboarded **50+ devices** with full-disk encryption, bringing deployments into compliance with university policies

### AI Software Engineer

AVI Human Services | Internship

May 2025 - August 2025

Remote, USA

- Spearheaded development and deployment of real-time AI SWOT analytics for state administrators using **React, Node.js, TypeScript, Google Gemini 2.5 API, & Docker** on **AWS**, enabling intelligent querying and automated alerts for **50,000+** student records across **10 US state** agencies, and reducing manual analysis time by **75%**
- Formulated prompt optimization framework for Transition Readiness Toolkit(TRT) curriculum generation using **RAG techniques & vector embeddings**, achieving **40%** improvement in content relevance & automated curriculum creation for nationwide Pre-ETS programs with production-grade API orchestration on **Kubernetes** clusters

### Software Developer

eWarranty Solutions | Internship

July 2023 - February 2024

Pune, India

- Developed a large-scale **QR code based warranty verification** system using **Java, Kotlin, Spring Boot, and RESTful APIs**, streamlining workflows for over **45,000** products and cutting manual errors by 30%
- Engineered **real-time analytics** dashboard with Spring Boot, **JavaScript, MySQL**, and integrated CompletableFuture API for asynchronous data retrieval, enabling manufacturers to make better warranty decisions
- Enhanced backend performance by optimizing database queries, **API workflows**, & system architecture with **MySQL, Kotlin Coroutines & HikariCP** connection pooling, achieving a **40%** reduction in response times & ensuring scalability

## PROJECTS

**Dinodash** | C++, Raylib, OpenGL, Clang/GCC, Cross-platform 

- Developed 2D survival game in **C++** using **Raylib & OpenGL** with real-time physics, collision detection, & dynamic object spawning while maintaining stable **60 FPS** performance across multiple platforms.
- Implemented advanced graphics systems including multi-layer **parallax scrolling**, procedural day-night cycles, & optimized resource allocation for **25+** game assets with proper resource cleanup.

**Custom Unix Shell** | C, System Calls, Process Management, File I/O 

- Implemented fully functional Unix-like shell in **C** supporting command execution, piping, I/O redirections (**>, >>, <**), background processes (**&**), and logical operators (**&&, ||**) using **fork(), exec(), and wait()** system calls.
- Designed asynchronous background process execution with **PID tracking** & file descriptor management, achieving stable performance across **500+** test commands with proper cleanup & edge case handling.