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Education

The University of Texas at San Antonio

Aug 2022 - May 2026

Bachelor of Science in Computer Science

Overall GPA: 3.60

Technical Skills

Languages: Python, C, Java, SQL, Shell, JavaScript, CSS, HTML, Swift, LaTeX

Developer Tools: AWS, Azure, GCP, Kafka, Kubernetes, Docker, Git, Android Studio, VS Code, Xcode, WebStorm

Technologies/Frameworks: Apache, ReactJS, Next.js, Node.js, JUnit, scikit-learn, SwiftUI, CoreML

Databases: MySQL, AWS (DynamoDB, RDS, Aurora, Neptune), SQLite

Concepts: Software Development, System Design, Cloud, Software Design Patterns, Github, Unit Testing, UI/UX, Agile

Experience

AT&T Jun 2024 - Jul 2024

Software Engineering Extern

Remote

- Gained experience with Agile frameworks (Scrum, Kanban, Scrumban, and XP), leveraging adaptability to drive efficient and collaborative project management and software development.
- Acquired and applied various modern technologies including RESTful APIs, Web Services, Cloud Computing, Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Software as a Service (SaaS), understanding their implementation and practical usage within AT&T's ecosystem.

The University of Texas at San Antonio, Computer Science Dept

Jan 2024 - Present

Computer Science Tutor

 $San \ Antonio, \ TX$

- Mentored 300+ students in Software Engineering, Applications Programming, Systems Programming, Object-Oriented Programming, Programming 2, and Programming 1, demonstrating strong communication skills.
- Developed personalized strategies, helping 90% of students successfully debug and complete projects while deepening their understanding of data structures, algorithms, and system-level programming.
- Enhanced students' proficiency in Java, Python, and C, contributing to a 25% improvement in assignment completion rates and promoting best practices in software development, version control, and testing.

Projects

Word2Vec4Kids | Python, Google word2vec, Swift, SwiftUI, CoreML, SQLite, Shell, GitHub

- Developed the Word2Vec4Kids macOS application using Swift to teach Machine Learning concepts to students at Basis School - SA, integrating word2vec for word arithmetic and cosine similarity algorithms for word proximity calculations.
- Implemented a backend system using SQLite to store user data and game results, and analyzed user learning trends through Python, showing measurable knowledge improvement with a statistically significant p-value of 0.007.
- Leveraged 200-dimension word embeddings to create interactive, educational game modes, resulting in demonstrable knowledge gains for students, validated through pre and post surveys evaluating their understanding of AI.

Math.AI | AWS (EC2, AMI, Auto Scaling, API Gateway, DynamoDB, IAM), Apache HTTP Server, Next.js, OpenAI API

- Orchestrated the system design of a seamless and scalable AI chatbot web app exploiting AWS EC2 Auto Scaling, API Gateway, and DynamoDB, ensuring uptime and responsiveness by 100%.
- Integrated OpenAI's API for kid-friendly math guidance, leading to a 30% improvement in learning outcomes for grades 2 to 8, as indicated by pre-interaction surveys.
- Engineered an optimized UX with Next.js, boosting UI response by 25% for a smooth and engaging experience

Clothing E-commerce | Next. is, Java, Apache Tomcat, AWS (EC2, Lambda, DynamoDB), GitHub

- Managed a scalable React front-end hosted on an AWS EC2 instance, providing a dynamic user experience for a clothing e-commerce platform, utilizing strong problem-solving and adaptability to ensure scalability.
- Designed and deployed a Java backend API hosted on AWS Lambda with Apache Tomcat, enabling secure and efficient communication between the front end and DynamoDB for real-time product management.
- Integrated AWS DynamoDB as the primary database, optimizing data retrieval and storage for high-volume e-commerce transactions while ensuring fault-tolerant and low-latency operations.

Leadership / Extracurricular

Association for Computing Machinery (ACM), Rowdy Creators

Aug 2023 - Present

Technical Officer

The University of Texas at San Antonio

- Provided technical guidance to over 10 project teams in Rowdy Creators, offering expertise in cloud computing, AI/ML, Linux environment setup, and website hosting: accelerating project delivery by 30%.
- Developed and maintained a scalable website for Rowdy Creators using TypeScript and the Next.js framework, ensuring 99.9% uptime by leveraging Vercel, supporting over 400 active users, and reducing load times by 25%.