Baalavignesh Arunachalam (He/him)

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SUMMARY

Full-stack developer with professional experience in cloud computing, web, and app development. Proficient in designing scalable solutions and robust systems and collaborating effectively within teams. Accomplished hackathon participant with multiple wins, showcasing innovation and technical expertise.

EDUCATION

George Mason University   Virginia, United States
Master of Science in Computer Science GPA: 4.0   *August 2024 -Expected May 2026*
Relevant Coursework: Theory and Application of Data Mining, Database Systems, Component-Based Software Development, Mobile Immersive Computing, Secure Software Systems.

PSG College of Technology   Coimbatore, India
5 years integrated Master of Science in Software Systems   *June 2018 - May 2023*

SKILLS

Programming Languages: TypeScript, Python, JavaScript, HTML, CSS, C#, C, C++
Technologies: React, Next.js, Node.js, AWS, Docker, Kubernetes, SQL, FastAPI, NumPy, Pandas, MongoDB, Angular

PROFESSIONAL EXPERIENCE

Presidio, Inc.   *March 2023 – July 2024*
Associate Software Engineer
- Developed internal learning platforms and retro tools using React, designing a scalable architecture on AWS with a serverless approach utilizing Lambda, API Gateway, Cognito, and RDS with MySQL for seamless data management.
- Engineered an Award Maintenance platform using Azure AD, React, Lambda, and Node.js with a Microservices architecture. Implemented a CI/CD pipeline with GitLab, streamlining the development process and ensuring faster delivery.
- Contributed to client projects utilizing WebRTC, React Native, Microsoft Azure, and Docker, delivering robust solutions for real-time communication and cross-platform mobile development.

Toast, Inc.   *June 2022 – July 2022*
Software Developer Intern
- Managed several gigabytes of invoice bills using DynamoDB with Lambda for a serverless solution with authorizers for the REST API through API Gateway for efficient data retrieval and processing.
- Optimized data scans by implementing Local and Global Secondary indexes, reducing overall scan times by 40%. Applied SOLID principles to enhance code maintainability.

Zoho Corporation   *May 2021 – November 2021*
Software Developer Intern
- Developed an Angular application with Ngrx store for state management, implementing organizational authentication for a secure internal voting system, improving user access control and experience.
- Built an Impact Analyzer tool using Node.js and AST Tree Traversal, enabling efficient tracking and debugging of changes in project files and dependencies, reducing the overall debugging time.

PROJECTS

SkillAgent
Personalized Learning Platform for Workforce Development
- Created a personalized learning platform leveraging OpenAI to provide customized skill development plans and AI tutoring, utilizing Vite.js, Tailwind CSS, Vanta.js, and Redux Toolkit for a seamless and interactive user experience.
- Integrated OpenAI's Assistant and Threads features with a Node.js backend following the MVC architecture, utilizing Axios for API communication and Firebase Firestore for secure data storage.

SecureFileStore
A Secure File Storage Solution with Python and FastAPI
- Developed a cloud-based file storage platform using FastAPI for the backend and Python for efficient file handling, leveraging AWS S3 for secure and scalable file storage.
- Utilized Fernet encryption to protect user files before uploading to S3, integrated MySQL for metadata storage, and implemented JWT and bcrypt for secure user authentication and password management.

CERTIFICATION & ACHIEVEMENTS

- **AWS Certified Solution Architect and Cloud Practitioner** - Amazon Web Services
- **Kubernetes for the Absolute Beginners** - KodeKloud
- **Best Prototype Award** - **Story3 Hackathon,** HackerEarth
- **Honorable Mention** - **DataPalooza Hackathon,** DevPost