MATHEW THOMAS

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Experienced software engineer with proven ability to quickly overcome challenges in the tech domain, having 8 years of Software Engineering and Development experience and open to opportunities where my technical skills will be fully harnessed.

EDUCATION

MSCS	**Georgia Institute of Technology**	**Current**
	Master of Science in Computer Science (Online, Part-time)	
	Computing Systems	
Cert.	**University of Texas Austin Boot Camps**	**June 2020**
	Coding Bootcamp	
	HTML5, CSS3, JavaScript, jQuery, AJAX, Bootstrap, React.js, Node.js, MongoDB, MySQL, Heroku	
MEE	**University of Houston**	**May 2016**
	Master of Electrical Engineering	
	Data Structures & Algorithms, Database Systems, Digital Control Systems	
B.Tech	**Vellore Institute of Technology, India**	**May 2013**
	Bachelor of Technology in Electronics	
	Computer Architecture, Data structures, Algorithms, Digital Signal Processing, Semiconductor Devices and Circuits, VLSI, Process Control	

EMPLOYMENT HISTORY

State Farm Insurance Company, Dallas, TX   **June 2020 – Present**
Senior Software Engineer (Full-Stack - Data, Cloud, UI/UX) – AI Strategy and Execution
Project Customer Graph: Led cross-functional team efforts in the initial creation of a Knowledge Graph using Neo4j (NoSQL), sourcing and modeling diverse State Farm customer data; collaborated with Ernst & Young consultants to deliver a POC using StreamSets ETL pipelines to populate the graph.

- Supervised and coordinated a team of ETL developers in migrating StreamSets ETL pipelines to AWS cloud-native services, leveraging Terraform, AWS Glue, GitLab CI/CD, and Python/PySpark to improve reliability, scalability, and maintainability of Customer Identity and Knowledge Graph pipelines. Developed a real-time event framework (Pub-Sub) using AWS SQS, SNS and Lambdas.
- Managed AWS EC2 infrastructure via EC2 Session Manager and provided mentorship on best cloud practices to junior engineers.
- Directed CI/CD pipeline development with GitLab, including custom runners, Dockerized deployments, and integration of Terraform modules for infrastructure provisioning and automation. Monitored ETL performance using Dynatrace and Datadog for AWS Glue and Lambda CloudWatch metrics.
- Designed and governed Terraform-based infrastructure modules for AWS services including Glue (jobs/triggers), EventBridge, Redshift, SNS, SQS, Firehose, EC2, IAM (roles/policies), Step Functions, Lambda, Security Groups/VPC, and S3.

Project On-Premise Database Migration: Migrated on-premise database and ETL pipelines to Azure cloud using Data Factory (ADF), Synapse, Blob Storage, Azure Serverless SQL and Key-Vault.
- Created cloud architecture, data, and network flow diagrams for migration effort.
- Monitored metrics using cost analysis and ADF alerts.
- Created PowerBI visual reports for daily ETL data runs and daily data quality.
- Created the team homepage using SharePoint and data entry for purchasing invoices using SharePoint lists.

Project Agent Digital Dashboard: Worked on creating State Farm Agent Digital Dashboard UIs using Node.JS, React.JS, Spring Boot and PostgreSQL DB for agents to analyze and aggregate customer data.

Dow Inc., Baton Rouge, LA   **August 2018 - September 2019**
Process Automation Engineer – Technical Engineering Services
- Created modern web-based operator UI from legacy CAN diagrams using JavaScript, HTML, CSS/SASS and Ajax/Axios calls for asynchronous APIs. Created CLIs using NodeJS, Server/routes using Express and stored user info on MySQL.
- Worked on FORTRAN based DOW control system (DOWTRAN) programming and automation projects. Tuned PID, constraint controllers and performed scale fraction math calculations on DOWTRAN code. Performed code loads during turnarounds as per plant schedules.

Hargrove EPC, Houston, TX   **May 2017 - April 2018**
Controls and Automation Engineer
- DCS configuration and web linking of I/O points and modules on client's side server. Created responsive web pages for operators using JavaScript, HTML, CSS/SASS and Ajax/Axios calls for asynchronous APIs. Created Hargrove Team Dashboard using Node.JS, React.JS, PostgreSQL DB to track client project metrics.
- Developed web interface and linking of graphics from DCS server. Performed pre-fat testing with Fluor FDH JV team for Process, DCS and IPS graphics for Units 31 and 62

BL Technology, Houston, TX   **March 2017 - May 2017**
Engineering Intern
- Worked on City of Houston wastewater treatment plant's PLC replacement. Siemens SIMATIC S7 300 PLC tag matching, updating HMI databases and web development.
- Verified I/O module tags with CAD drawings. Prepared Operations and Maintenance manuals. Created responsive web pages to display manuals for clients using JavaScript, HTML and CSS.

PROJECTS & CERTIFICATIONS

Microsoft Azure Fundamentals (A-900)   **2024**
HashiCorp Certified: Terraform Associate (003) - IaaC   **2023**
Gold certification for State Farm Secure Code Warrior (OWASP)   **2022 - 2025**
Silver certification for State Farm Secure Code Warrior (OWASP)   **2022 - 2025**
Bronze certifications for State Farm Secure Code Warrior (OWASP)   **2022 - 2025**
Stability Control Using Pole Placement (University of Houston)   **2015**
MPEG Video Animation Using C (University of Houston) – 3rd place   **2014**
Self-Healing of LTE Networks (VIT University)   **2013**