William Runyon

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Education

Master of Science	**Georgia Institute of Technology**	*Atlanta, GA, USA*	**12/2023 - 12/2024**

- Major in Computer Science

Bachelor of Science	**Georgia Institute of Technology**	*Atlanta, GA, USA*	**08/2021 - 12/2023**

- Major in Computer Science
- 4.0 GPA

Experience

Software Engineer, Intern	**Kyndryl**	*Austin, TX, USA*	**05/2023 - 08/2023**

- Led the design and development of an Azure cloud SAAS solution that could manage Kyndryl's cloud infrastructure, which drives 20 billion in revenue a year, using the latest technologies of **Azure, NextJS, Redux, Redux Query (with automatic token refreshing), Azure Functions, Azure Pipeline, Docker Containers, Recharts, ChartJS, Tailwind, NextAuth, the Azure API, Postman, Thunderclient, Python, PowerBI, AWS EC2 (for PowerBI Desktop), and Terraform.**
- Created a subscription page which validated whether the subscription could query the Azure API, and would persist the information using a combination of Redux for global state management, local storage cookies, and storage in the cloud.
- Developed Azure functions to distribute **access tokens**, provision storage through **Azure Blobs,** and fetch data from the Azure API and reorganize it so that it could be used in Table and Chart visualizations
- Protected routes using **NextAuth** and **JWT** tokens to ensure only authorized employees had access
- Developed actionable buttons within an Admin dashboard that would change the state of infrastructure on the cloud per suggestions made after analyzing real time diagnostics

Software Engineer, Research	**GT - Experimental Flights**	*Atlanta, Georgia*	**01/2022 - Present**

- **Drone-based Delivery System:** Researched & suggested Tello drone that cost 10% of our budget; wrote code to integrate drone with PC; developed inventory-management system to give client interactive dashboard where warehouse statistics are presented (React/Django)

Software Engineer, Research	**GT - Augmented Environments**	*Atlanta, GA*	**08/2021 - 12/2021**

- **3D Web-booklet:** Incorporated AR/VR components using Mozilla Hubs to create an engaging learning experience (Vue.js & TypeScript.js)

Software Engineer, Open Source	**Marta ARMY, LLC**	*Atlanta, GA*	**06/2021 - 09/2021**

- **Atlanta Transit Map:** Implemented interactive card in map UI that displays real-time transit information from Marta's catalog (React.js)

Projects

- **Landscape Image Classification:** Preprocessed 4,000 images and applied unsupervised and supervised techniques to achieve an accuracy of 70% (KMeans, Gaussian Mixture Model, DB-Scan, Silhouette Coefficient, Calinski Score) **(Fall 2022)**
- **Predict if Brain Tumor is Benign or Malignant:** Developed deep learning models that accurately detected brain tumors by identifying abnormalities and diseases in MRI scans from patients with nearly 80% accuracy. (RNN, CNN, Attention, Decision Trees) **(Spring 2023)**
- **Tower Defense Game:** Led the development of a 2D "Tower Defense" game using SceneBuilder, Agile/Scrum methodologies, and Design Patterns like Singleton and Factory Method (Java, JavaFX, JUnits) **(Spring 2022)**
- **Vehicle with Greatest Fuel Economy Report:** Collaborated with team to create statistical models that determined the most fuel-efficient vehicle using multivariable analyses (R) **(Spring 2022)**

Mentorship

- **Computer Science Tutor:** Machine Learning CS 4641/7641 | Object Oriented Programming CS 1331 | Programming **(Current)**
- **Math Tutor:** Algebra 1 & 2 | Geometry | Pre-calculus | Calculus | Trigonometry **(01/2020 - 09/2020)**

Skills

- Java | JavaScript | TypeScript | C | MYSQL | Node | Express | React | Vue | Redux | NoSQL | Git | Github | Python | Material UI
- AWS | Azure | Cloud Computing | Lambda | Shell Scripting | Automation | CI/CD Pipeline | Github Actions | Docker
- Frontend | Backend | Full-Stack | Postman | OOP | Unity 2D | Game Development | Unit Testing
- R | Agile | SCRUM | Sequence Diagram | Design Class Diagram | Unified Modeling Language
- Object-oriented programming | Computer organization and programming | Linear algebra | Multivariable calculus | Discrete mathematics
- Machine learning | Deep Learning | Design & Analysis of Algo | Statistics | Data structures | AI | Intro to robotics | Computer Graphics

Others

- **GT WebDev:** Created agar.io-inspired app that supported multiplayer functionality (p5.js)
- **Valedictorian:** Class rank #1, valedictorian of Thomas Stone high school 2019.