Michael E. Tomadakis

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Education

University of Florida (Computer Science GPA: 3.83) *August 2020 - **May 2024***

B.S. in Computer Science (Engineering), Minor in Business Administration

Significant Coursework: Database Systems, Operating Systems, Data Structures & Algorithms, Computer Architecture, Discrete Structures, Intro to Probability, Computational Linear Algebra, Differential Equations, Signals and Systems, Statistics for Engineers, Intro to Data Science, Natural Language Processing, Multimodal Machine Learning, Computer Networking, Computational Photography, Software Engineering, Bioinformatics

Skillset

Languages - Python, MatLab, R | Typescript, C++, CUDA | MongoQL, SQL | HLSL, GLSL

Frameworks/Tech - Next.js, MongoDB, OracleDB, Terraform, Docker, Github Actions, AWS, Torch, Pandas, NumPy, SpaCy, NLTK, Unreal Engine 3/4/5, Blender / Cycles, SideFX Houdini

Projects

Phonetic Autocorrect (Python) | Multimodal ML (Semester-long Open-Ended Course Project) *Spring 2023*

- Utilized SpaCy, Torch, phonetic embeddings, n-gram model to perform phonetically-driven autocorrection.

"DLU.js" | Part of DevLUp *Fall 2021 - Ongoing*

- Wrote and used Next.js backend w/ MongoDB, hosted on AWS w/ Terraform, Docker, Github Actions CI/CD.
- Created responsive, crawlable SSR frontend utilizing Three.js, Redux, Tailwind.

Covid Data Visualization App | Database Systems (Course) *Fall 2021*

- Wrote SQL queries involving joins of >10 large tables in OracleDB database of >250k rows, visualized w/ Chart.js in React.

Memory Manager (C++) | Operating Systems (Course) *Spring 2022*

- Improved performance (tested at 15%, highly implementation-dependent) in programs utilizing malloc by preallocating and tracking variable sums of memory to later use without issuing additional system calls.

Neural Network from Scratch (C++) | Data Structures (Course) → Passion Project *Spring 2021, Summer 2022*

- Made w/ a partner, implemented neurons, layers, and backpropagation, using Eigen library.
- Achieved accuracy near multiple linear regression predicting COVID outcome from CDC dataset.

Experience

JP Morgan Chase | Software Engineering Intern *June - August 2023*

- Smallest & *only* intern team to deploy completed app to production, early demos in test enviro in < 1 week.
- Wrote ~11,000 lines of Typescript, with rapid response to several last-minute feature requests.
- Discovered and mended substantial vulnerability and instability in two other internal tools.
- Achieved 90% code coverage with JEST. Used Terraform, JULES CI/CD to provision and deploy to AWS.

Berni & Murcer - Friends for Life | Intern | Project Manager, Tech Art Lead *June 2022*

- Planned/executed game development effort w/ team of 30 volunteer artists and programmers.
- Guided team of 10 artists in technical art techniques in Unity.

DevLUp (UF Student Org & Nonprofit) | President / Founder *2020 - Current*

- Provided over 50 hours of technical workshops & supplementary material with emphasis on computer graphics, shaders, and Unreal Engine development.
- Seeded 4 collegiate branches at UF, FSU, FAU, and FIT, aggregating >2000 progress posts to our website.

UAV Club | President, Cofounder *2021 - Current*

- Secured $8k as part of NASA contract to build autonomous drone to map & curtail deforestation in Ghana using computer vision (ongoing), and $2.5k from UF Remote Sensing Lab to construct hexacopter for agriculture/computer vision.