ALEXANDER FICK

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EDUCATION

Dartmouth College, Hanover, NH   **September 2021 – June 2025**
Bachelor of Arts, Major in Computer Science, Minor in Human Centered Design   **GPA 3.92/4.0**
Relevant Courses: Software Design & Implementation, Problem Solving via Object Oriented Programming, Machine Learning & Statistical Data Analysis, Data Visualization, Discrete Mathematics, Principles of Robot Design/Programming, Intro to UI/UX Design
Honors: Citations for Meritorious Performance in Software Design & Implementation, Discrete Mathematics in Computer Science, Machine Learning & Stats, Principles of Robot Design & Programming, Data Visualization, Intro to UI/UX Design

Aquincum Institute of Technology, Budapest, Hungary   **September – December 2023**
Courses: Algorithms & Data Structures, Mobile Development, Combinatorial Optimization, Scalable Systems, Design Workshop

PROFESSIONAL EXPERIENCE

FacilityConneX, Nashua, NH   **June 2022 – August 2022**
Software Engineering and Data Science Intern
- Worked across the tech stack to develop new feature enabling user-configured data analytics in Python, TypeScript, & JavaScript
  - Supported UI and code design process of platform frontend, handled all backend code development and deployment
  - Developed backend REST API to integrate the user interface into the expression processing engine
  - Integrated distributed databases like Redis & GE Historian to build data payloads for the expression processing engine to calculate the configured analytic
  - Developed Ts.ED backend application that worked with relational databases like Redis and Microsoft SQL server to efficiently insert, update, store, and delete expression data in relational databases based on user inputs
  - Implemented FastAPI application in Python to handle expression validation and evaluation by leveraging Pandas tools
- Built and managed Kubernetes deployments of Pulumi services, used GitHub with Docker for source control
- Maintained data analytics accessed by 500+ monthly users, collaborating on migration of data analytics from C# to Python code

Dartmouth College, Hanover, NH   **November 2022 – Present**
NLP Deep Learning Research Assistant, Professor Soroush Vosoughi
- Investigated the efficacy of using large language models like ChatGPT for analyzing different language expression behaviors across cultures
- Assembled Python scripts to query LLMs and collect speech analysis data by culture using Reddit, Twitter, and Quora data
- Experimenting with different approaches of querying the LLMs to evaluate response consistency and accuracy

Dartmouth College, Hanover, NH   **September 2022 – November 2022**
Teaching Assistant, Data Visualization
- Assessed R script and figure quality in grading and providing feedback on students' visualization assignments
- Helped revise course structure and contents based on student performance

LEADERSHIP

Dartmouth Technology Consulting Group, Hanover, NH   **September 2021 - Present**
Director of Technology
- Directed and organized data science and software development projects for local and international startups, and hosted industry education workshops for over 60 club members
  KULLA – Project Manager (Winter-Spring 2023)
  - Managed a team of 8 developers to build a service that converts 2D DXF blueprint files to 3D OBJ blueprint files
  - Created a conversion algorithm in Python and implemented the website frontend in HTML and JavaScript
  - Integrated using AWS platforms like S3 buckets to host the website and necessary data for conversions, AWS Lambda for running the Python conversion script, and API Gateway for sending data between the client and server
  Bimmatch – Project Manager (Fall 2022)
  - Managed a team of 8 developers to implement a web scraper of relevant products and key specifications for Bimmatch's SaaS platform, which matches construction materials to architectural blueprints in Autodesk Revit
  Insighting.io – Software Developer (Spring 2022)
  - Leveraged machine learning clustering algorithms like Birch and DBScan in Python to cluster companies by customer and product features to help companies effectively target their marketing efforts and increase profit margins

Dartmouth Pain Train Ultimate Frisbee Team, Hanover, NH   **September 2021 – Present**
Logistics Coordinator, Student Athlete
- Planned and managed travel and budget logistics of a 26-person team
- Competed with Dartmouth's A frisbee team against other D1 frisbee programs across the country
- Practiced with the team 8 hours a week, and trained outside of practice for over 12 hours a week

SKILLS

Code: Python, C, R, Java, Kotlin, JavaScript, TypeScript | **Technologies**: VSCode, Android Studio, Bash, Unix, Git, Jira, Figma, ROS