

# Thomas King Researcher — Technology Consultant Builder — Teacher



"Machines take me by surprise with great frequency"

~ Alan Turing

# **Objective**

Perspective PhD student with a strong background in computer science, biology and mathematics seeking to carry out research in biologically inspired AI in the Neurobotics Lab at the University of Vermont.

## **Professional Experience**

Self Employed 2022-Current

Technology Consultant

- Designed and built SaaS web platform providing services for business owners
- Rebuilt portions of a SaaS platform that had poor design and implementation
- Advised clients on modern web development practices and tooling
- Continued development of prototype document tooling to aid in processes within the pharmaceutical regulatory industry
- Advised clients on potential approaches to apply custom LLMs and associated pipelines within a product offering
- Developed web application based demos of various NLP approaches to challenges within a potential product

## Paraplex Software (Early Stage Software/Game Startup)

2020-2022

Lead Developer

- Architected and implemented system for multiplayer game mechanics, persisted state, and cloud computation using Firebase
- Designed and implemented backend user account system for company's future products
- Designed, implemented, and integrated backend system using Typescript and C#/Unity for mobile-first online-only video game
- Deployed and maintained internal systems
- Communicated and worked with small team on all aspects of current competitive video game project

### Canopy Life Sciences (FKA Framework Solutions)

**Summer 2020** 

Al Software Engineering Intern

- Researched developments in automated regulatory compliance checking
- Developed prototype web application for document evaluation using Node.js and Vue along with Javascript/Typescript, Python, Docker, and MongoDB
- Utilized REST APIs to pull relevant information from government databases
- Implemented machine learning models to classify text from documents
- Incorporated natural language processing techniques to analyze text
- Implemented an initial ML approach to classifying text within documents
- Communicated with team members and company members about technical ideas and project direction

#### Robotics and Beyond

2017-2019

Assistant Camp Director

- Planned and implemented four-week educational STEM summer camp program
- Managed instructional staff ( $\sim 40$  individuals), and program budget of \$65,000
- Proposed and led implementation of new internal backend using GSuite
- Co-created current scheduling and management structure for 25-40 staff, and 40-60 students per week
- Co-managed hardware, software, and space requirements including securing facilities, organizing equipment transport, PC imaging, etc.
- Provided input on the future direction and goals of the organization

## **Education and Research**

## **University of Massachusetts Amherst**

2019-2022

B.S. Computer Science

GPA: 3.834

- Minor in Biology
- Minor in Mathematics

#### Clarkson University

2018-2019

Pursued B.S. Computer Science & Biology

GPA: 3.608

- Clarkson School Early College Program Class of 2019
- Undergraduate Computer Science Researcher in the Terascale All-Sensing Research Studio
  - Gathered thermal image data, and implemented image processing techniques to map thermal data into 2-dimensional user-input.

#### **New Milford High School**

2015-2019

GPA: 4.40

# **Awards and Recognitions**

#### Commonwealth Honors College Scholar with Greatest Distinction

2022

University of Massachusetts Amherst

#### **Graduated Cum Laude**

2022

University of Massachusetts Amherst

#### Member of Clarkson University Honors Program

2018-2019

Clarkson University

#### Chancellor's Scholarship (Four Year Merit Award)

2019-2022

University of Massachusetts Amherst

#### Dean's List - All Semesters

2018-2022

University of Massachusetts Amherst & Clarkson University

#### **Eagle Scout**

2018

CT Rivers Council (New Milford Troop 58)

# **Skills and Competencies**

- Software Development
- Database Design
- Web Development
- Systems Design
- Site Reliability Engineering
- Cloud Based Design
- Linux
- Cybersecurity

- IT Services
- Scientific Computing
- Machine Learning
- Natural Language Processing
- Knowledge of SoTA AI Technologies
- Systems Management
- Workflow Optimization

- Problem-Solving
- Critical Thinking
- Technical Communication
- Tech Risk-Benefit Analysis
- Business/Startup Needs
- Instruction/Education
- Product Development
- Project Roadmapping