

KATHIR MEYYAPPAN

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EDUCATION

University of Chicago

Bachelor's Degree: Mathematics (Computer Science minor); GPA: 3.981

Chicago, IL

Expected, 2025

Relevant Coursework: Systems Programming, Theory of Algorithms, Abstract Linear Algebra, Real Analysis, Discrete Mathematics, Calculus, Statistics, Mechanics, Electricity & Magnetism, Waves & Optics, Probability Theory, Group Theory

EXPERIENCE

UChicago Institute of Politics

Chicago, IL

Software Developer

October 2023 - December 2023

- Worked in a small team to programmatically identify malicious false-citation practices in 200+ politically charged flyers.
- Utilized LLM computing and regex to identify misinformation sources and pipeline data into Google Drive workflow.

Dräger

Andover, MA

Software Engineer Intern

June 2023 - September 2023

- Solved bottleneck issue in product lifecycle by automating defect report generation, decreasing engineering effort by 85%.
- Pushed triangular and sine wave functionality to desktop application for heartbeat simulation and ECG testing.
- Developed, documented, and deployed internal tool (using C#), streamlining the quarterly FDA communication process.
- Created API documentation and wrote automated + manual tests for quality assurance + debugging to enhance tool reliability.
- Wrote OpenXML script in backend to execute 2500+ queries per day from JIRA database to generate and file reports.

Valtitude

Woburn, MA

Data Science Intern

June 2021 - August 2021

- Utilized data science packages and ARIMA methods to predict trends in multi-faceted client data in the supply chain sphere.
- Documented utility of various time series processes in demand forecasting, using R to visualize and present findings.

SKILLS

Programming Languages: Python, C, C++, JavaScript, C#, R, Assembly (x86), HTML, CSS

Tools/Tech: Microsoft Visual Studio, .NET, React.js, Node.js, Git, SVN, Google Cloud Platform, Jira, Firebase

Technical Skills: Computer Systems, Full-Stack Development, Data Structures, Algorithms, Unit Testing, Source Control, Image Processing, Data Analysis/Visualization, Object Oriented Programming, Tools/Application Development

PROJECTS

mangalert.com - Manga Serialization Notification Service | *Javascript, Python, React.js, Node.js, Google Cloud Platform*

- MangAlert notifies 250+ users per month (via email and website) of followed anime/manga serializations that have ended.
- Built REST API with Node (Express) and deployed + hosted site, scheduled database/email updates, etc. using GCP.
- Securely hosted user data and media info in Firebase and displayed profile data to users with a React + Typescript frontend.

Edge Detector with Directional Heatmap | *Python, image processing, calculus, linear algebra, documentation*

- Implemented original Canny edge detection feature using theta gradient, imposing edge orientation heatmap onto images.
- Also coded (from scratch) Gaussian + median blur, nearest neighbor + bilinear interpolation, greyscaling, box sampling, etc.

OTHER

Leadership/Involvement: TechTeam, Algo Group, Japanese Animation Society (Acquisitions Officer), House Council (Secretary)

Awards: Dean's List 2022-2023 (top 10%), 3x AIME Qualifier, AP Scholar with distinction (12 AP exams: 10 aced, 2 with %)

Languages: English, Japanese, Tamil