

Arun Guruswamy

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EDUCATION

Dartmouth College

Expected May 2025

Bachelor of Engineering in Computer Science and Computer Engineering, GPA: 3.95

Hanover, NH

- Relevant Coursework: Software Design and Implementation, Machine Learning, Embedded Systems, Analysis of Algorithms, Integration theory, Sequences and Series, Data Structures and Algorithms, Multivariable Calculus, Software Engineering, Linear Algebra

EXPERIENCE

Software Engineer Intern

June 2023 – Present

Adaptive Biotechnologies

Remote

- Backend software engineer with a focus on automation, primarily working with Bazel, Python, Java, and Azure
- Built an AI-powered python application using Langchain and fine-tuned Large Language Models to expedite the process of configuring a new information management system by 67 percent
- Collaborated with a team in an Agile scrum environment to automate computational biology pipelines and reduce computational cost by over 50 percent

Teaching Assistant - CS50, Software Design and Implementation

March 2023 – June 2023

Dartmouth College

Hanover, NH

- Facilitated in teaching a software class focused on building large-scale, reliable, and maintainable software systems
- Provided personalized assistance to over 60 students in Unix command line, C programming, pointers, memory management, and core Unix development tools
- Fostered active learning through peer instruction, promoted dialogue, and provided feedback during classes

National Science Foundation Research Intern

May 2022 – July 2022

TECBio REU, University of Pittsburgh

Pittsburgh, PA

- Identified a set of molecules that could bind effectively to a SARS-CoV-2 protein to help accelerate the discovery of a Coronavirus antibody effective across mutations
- Presented a poster at the Summer Undergraduate Research Symposium hosted by Duquesne University

PROJECTS

Tiny Search Engine | C, Bash, Git, Visual Studio Code

January 2023 – March 2023

- Implemented a scaled down version of the Google search engine in C
- Programmed crawler, indexer, and querier modules to identify and rank the best webpages based off a given query

Trading simulator | Python, HTML/CSS, Flask, SQL

May 2020 – June 2020

- Created a web application through which one can manage portfolios of stocks
- Utilized the IEX cloud API to download stock quotes in JSON format
- Dynamically stored transactions and updated portfolios through Flask and PostgreSQL

Social Networking for Workouts | Java, AndroidStudio, Firestore, Git

Feb 2022 – May 2022

- Developed a full-stack android application using Java
- Created domain models, sequence diagrams, and class diagrams using PlantUML to visualize project architecture
- Used firestore to create a dynamic application with OAuth authentication

ACTIVITIES

Varsity Tennis Team

August 2020 – Present

- Devoted 20+ hrs a week to practices and competition; Achieved career high Juniors World ranking of 753
- Won the 2020 United States Tennis Association Sportsmanship award for excellent conduct on and off the court

TECHNICAL SKILLS

Languages: Java, Python, C, SQL (Postgres), JavaScript, HTML/CSS, Racket, Bash, Matlab

Frameworks: React, Node.js, Flask, JUnit, Angular.js

Developer Tools: Azure, Git, AndroidStudio, VS code, IntelliJ, Jupyter Notebook, Notepad++