Vignesh Chandrasekhar

Software Engineer

Website/LinkedIn/GitHub

EDUCATION

Bachelor of Science, Computer Science, *Minor in Business* — Boulder, CO
Summa Cum Laude — Aug 2019-May 2023
University of Colorado Boulder
Major GPA: 4.00 | Cumulative GPA: 3.983

EXPERIENCE

Associate Software Engineer; *Charles Schwab – Wealth & Asset Management Engineering* — Sept 2023 – Present
Software Engineer Intern; *Charles Schwab – Wealth & Asset Management Engineering* — June 2022 – Aug 2022

- Developed a full stack governance application using Angular 9, C# .NET Core 3, and SQLServer that allows WAME local governance coordinators and board members to view, maintain, schedule reviews, and vote on architecture requests submitted by engineering and developer teams through Jira. Utilizes the Jira REST API to retrieve ticket information and allows coordinators to submit subtasks and comments to an issue.
- Utilizes a 3rd Normal Form Data Model to manage personal information of a developer or coordinator, review schedule, selected voters/reviewers, voting results, and stipulations. Incorporates associative tables to reduce redundancy via foreign key relationships.
- Sends emails to architects and coordinators in different contexts with SMTP.
- Utilizes route guards via SSO authentication for different WAME security groups.

Course Assistant; University of Colorado Boulder College of Engineering — Aug 2021 – Dec 2021

- Artificial Intelligence (CSCI 3202)
  - Supporting students in learning AI concepts with Python such as path finding, Bayesian Networks, reinforcement learning, Hidden Markov Models, and game theory
- Software Development (CSCI 3308)
  - Assisted students in building web applications using HTML, CSS, JavaScript, bootstrap, NodeJS, Express JS, Docker, PostgreSQL, REST APIs, and Heroku.

NSF-REU; National Science Foundation; Utah State University — May 2021 – July 2021

- Conducted research in engineering education and its applications to topics in fluid dynamics for an ONR funded project: "Mobile Instructional Particle Image Velocimetry (mI-PIV). Developed a Teach Engineering activity for a vortex generator experiment.

Technical Skills

Languages + Frameworks: C, C++, C#, Java, Python, JavaScript, TypeScript, Angular, NodeJS, .NET Core 3
Technologies: PostgreSQL, MySQL, SQLServer, MongoDB, Heroku, Git, GCP, NPM, Docker, AWS, Anaconda, Jupyter
Course Knowledge: Algorithms, Data Structures, Software Development, Network Systems, Operating Systems, Database Systems, Data Science, AI, Theory of Computation, Discrete Structures, Machine Learning

Awards

Professional Learning Award

- Recognized by the Computer Science Department for outstanding contributions and significant engagement with internships and professional development, and engaged with academics to an extent that elevates their own and/or others' learning experiences.

Active Learning Award

- Demonstrated commitment to active learning through research, service, and professional experiences.

Projects

Optimized Health: Full stack smart health web application built with NodeJS, PostgreSQL, and the Spoonacular nutrition API.

Multi-lookup: Programmed a multi-threaded DNS resolver in C using synchronization methods. Scored highest multi-threaded speedup of all submissions. Part of the Operating Systems course at CU Boulder.

HTTP Web Proxy: Programmed a multi-processed HTTP Web Server in C that handles simultaneous client connections, as well as keep-alive socket functionality. Servers web pages from remote hosts or from local cache within specified timeout range.