

Prudhvi Boyapalli

Website: prudhviboyapalli.com
Github: github.com/prb2

EDUCATION

B.S. Computer Science, Rice University, May 2017.

EXPERIENCE

Amazon, Software Development Engineer Intern, May – August 2016

For an internal data storage and validation platform, I implemented a self-service mechanism which allows users to query information from the platform's data store and publish it to external destinations.

I created several Java utilities which use the Amazon Web Services SDK to interact with Elastic Map Reduce (EMR), Simple Storage Service (S3), and Relational Database Service (RDS).

The preexisting method for querying and publishing data took 1-2 days of effort from a software engineer. By implementing new features which utilized my Java programs into the platform's UI (using Angular, Node, and the Jade template engine) I enabled even non-technical users to carry out the same tasks in a matter of minutes.

Physical and Biological Computing Group (Rice University), Research Assistant, May – August 2015

Using the Open Motion Planning Library, I created and deployed an open source web application to configure, solve and visualize robotic motion planning problems. The project is open source and is publicly available at omplapp.kavrakilab.org.

To help users pick the best motion planner for their needs, I implemented a way to benchmark planning algorithms, allowing users to compare performance across different types of environments and problems.

I designed and implemented the user interface in JavaScript using jQuery, Bootstrap, and THREE.js (a 3D graphics library) as well the backend written in Python using Flask and Celery.

Rice University, Teaching Assistant, Fall 2014 & Spring 2016

As a teaching assistant for Computational Thinking (Fall 2014) & Parallel Programming (Spring 2016) I held office hours to tutor students, provided assistance during labs, and graded assignments and tests.

RESEARCH WORK

Physical and Biological Computing Group (Rice University), Research Assistant, October 2014 - Present

I am currently researching and developing an algorithm to find biologically important and valid pathways within a graph of metabolic reactions.

In addition, I am creating an interactive web application to visualize metabolic pathways.

LEADERSHIP & ACTIVITIES

Rice Computer Science Club, HackRice Committee Chair, April 2016 – Present

As head organizer for HackRice, an annual hackathon with over 400 participants, I led a committee of 16 students to manage a budget, review applications, and coordinate all aspects of hosting a hackathon.

I also spearheaded the event's fund raising efforts by creating a sponsorship packet and reaching out to sponsors.

Rice Robotics Club, President, April 2014 – April 2015

I coordinated the design and construction of competition robots and presented new workshops in equipment safety and robot construction.

I led the 10 person team to qualify for and compete in the 2015 Vex-U World Championships, a feat which had only been achieved once before in the club's history.

TECHNICAL SKILLS

Proficient in: Java, Python, JavaScript, HTML/CSS, Version Control Systems (Git, Subversion)

Familiar with: C, Scala, Unix Shell, Amazon Web Services (Elastic Map Reduce, Simple Storage Service, and Relational Database Service)