Arun Ramachandran

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Personal Info

Nationality: USA

Education

National Institute of Technology, Trichy
B. Tech.
Computer Science and Engineering
2014-2018
CGPA 8.43

Links

github.com/jhurricane96
linkedin.com/in/aramach

Languages

C • C++
HTML • CSS
JavaScript • SQL
Intermediate
Java • Python
MATLAB/Octave
LaTeX

Tools & Tech

Web | Backend
Node.js • Express.js
MongoDB • Socket.io
Web | Frontend
jQuery • Bootstrap
WebGL with Three.js
Platforms
AWS • Serverless
Voice Recognition with Alexa Skills Kit
Build Tools
ANT • CMake • npm
Version Control
Git

Experience

May–Jul 2016 **Amazon Development Center, India** Software Engineer Intern

- Worked on an Echo-driven Tech Conference, where Amazon Echo devices use voice recognition to act as help desks and MoC's.
- Modelled MoC dialog as a state machine to enable effortless dialog deployment even during production. Made query responses dynamic to reflect schedule changes.
- Made fully serverless backend with AWS and wrote integration tests with Mocha. Used JWT for stateless authorization and authentication.
- Successfully deployed and used by over 150 people in Amazon's India Tech Conference '16.

Projects

Oct 2016–Now **Code Character**

- Event in Pragyan '17, the international techno-management festival of NIT Trichy. Players upload AI to control troops in a real-time strategy simulation.
- Leading a team of nine programmers to make an automated multi-threaded simulator in C++ that can run both with a renderer and in headless form.
- Providing sophisticated path planners to move troops in formation using graph searching and steering behaviours.
- Using CMake to provide easy cross-platform builds of dynamic libraries.

Apr–Oct 2016 **Chess AI** github.com/jhurricane96/chessai

- Made a self-learning chess AI, which learnt weights from old games using temporal difference learning.
- Used piece values and piece square tables for move evaluation.
- Used MTD-f with Alpha-Beta Negamax and transposition tables for move selection.

Aug–Sep 2015 **Grav Guy** festember.com/~arunr

- Made a 3D video game with WebGL and Three.js to promote Festember '15, the national inter-collegiate cultural festival of NIT Trichy.
- Received over 16,000 plays.

Awards

Aug 2016 **InOut** 2nd place

Made a voice-based interactive bot that teaches students over a basic telephone and answers basic queries, all in Hindi, for InOut '16, one of India's largest student-run hackathons, hosted by NIT Surat.

Apr 2016 **Ventura** Best Business Model

Won 'Best Intra NITT Business Model' in Ventura of E-Summit '16, a national level hackathon and entrepreneurship summit conducted by E-Cell, NIT Trichy.

Feb 2016 **Three's a Crowd** 3rd place

Showcased knowledge of algorithms and ability to split tasks effectively and to work efficiently in a team in Pragyan '16, the international techno-management festival of NIT Trichy.

Jan 2016 **Onsite Programming Challenge** 2nd place

Showcased knowledge of and aptitude for programming and algorithms in Vortex '16, the national level technical symposium of the department of Computer Science and Engineering, NIT Trichy.

Jan 2016 **Code O Soccer** 3rd place

Coded robots to play soccer using finite state machines in Kshitij '16, Asia's largest techno–management festival conducted by IIT Kharagpur.