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 7.99

Links
arunram.me
github.com/jhurricane96
linkedin.com/in/aramach

Languages
C • C++
JavaScript
Intermediate
Java • C#
Python
MATLAB/Octave
LaTeX

Tools & Tech
Web | Backend
Node.js • Express.js
MongoDB • MySQL
Socket.io
Web | Frontend
HTML • CSS
jQuery • Bootstrap
WebGL with Three.js
Build Tools
ANT • CMake • npm
Version Control
git

Experience

May–Jul 2017	**Microsoft R&D, India**	Software Engineer Intern

- Worked on service hardening of Cortana reminders.
- Added performance counters at key dependencies for easier fault isolation.
- Enforced correlation ID to obtain all logs pertaining to a request with a single query.
- Scraped logs to provide an automated daily service usage report sent via email.
- All code was reviewed and pushed to production.

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

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

Projects

Oct '16–Mar '17	**Code Character**	github.com/jhurricane96/code_character_simulator

- Event in Pragyan '17, the international techno-management festival of NIT Trichy.
- Players upload AI to control troops in a real-time strategy simulation.
- Lead a team of nine programmers to make an automated multi-threaded simulator in C++, a renderer in electron.js to view simulations and a backend to power a web app.
- Provided cross-platform builds of dynamic libraries with CMake.

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

- Made a self-learning chess AI.
- AI 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.

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

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