

Akshay Aravamudan

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PROJECTS

ENGINEERING/PROJECT EXPERIENCE

POPULATION MIGRATION PREDICTION

- Academic project that used an LSTM time series predictor to predict the expected net migration.
- Trained the model using census data from government website.
- Objective was to verify spatiotemporal behaviors in large populations.

DOCKER CONTAINER VULNERABILITY ANALYSIS RESEARCH

- Part of a team that analyzed various technologies to perform vulnerability analysis for containers and use this information to deal with these vulnerabilities on the linux operating system.
- Researched open-source vulnerability analysis tool CLAIR to provide vulnerability information on Docker containers.

MORPHWING: An adaptive airplane wing designed for dynamic drag optimization.

- Control systems lead for the senior capstone project.
- Responsible for delegation and supervision of any controls system related tasks.
- Developed the embedded systems architecture.
- Developed a prototype android application to interact with the wing.

EXPERIENCE

08/2015 – 05/2016

FLORIDA INSTITUTE OF TECHNOLOGY

Melbourne, FL

Mathematics Tutor

Tutored students in freshmen, sophomore and junior level mathematics courses. Courses included college algebra, pre-calculus, calculus 1, calculus 2, differential equations and calculus 3.

08/2016 – 05/2019

FLORIDA INSTITUTE OF TECHNOLOGY

Melbourne, FL

Interface Developer

Responsibilities include data cleaning, graph theory applications, data analytics, developing project codebase, OOP UML modeling for system, simulation development. This is under the intention of improving the efficiency of a local manufacturing plant. Also wrote a discrete event simulation to replicate manufacturing practices.

EDUCATION

2014 – 2018

FLORIDA INSTITUTE OF TECHNOLOGY

Bachelor of Science, Computer Engineering

- Major: Computer Engineering
- Minor: Computational Mathematics
- Summa Cum Laude

2018 – 2019

FLORIDA INSTITUTE OF TECHNOLOGY

Masters of Science, Computer Engineering

- Graduation: July 2019
- Specialization in Machine Intelligence
- Masters thesis dealing with information diffusion in social networks.
- GPA: 3.85

SKILLS

- Proficient in mainstream machine learning techniques.
- Worked with subjects dealing with neural networks, probabilistic modeling, and stochastic processes.
- Good problem solving and analytical skills.
- Quick to find feasible solutions to given problems.
- Proficient in Object Oriented Programming Techniques in C++ and Java.
- Experience working with python and associated machine learning and scientific analysis packages.
- Interest and ability to stay up to date on current research in popular journals.
- Experience in modeling and implementing software systems to scale.
- Experience using git and svn for version control.

- Experience with using parallel processing libraries including MPI, OpenMP, and CUDA programming techniques.
- Experience with Amazon AWS platform.
- Proficient using the Linux terminal.
- Experience working with SQL databases.

REFERENCES

Aldo Fabregas Ariza PHD, Supervisor for current job
Email afabregas@fit.edu
F.W. Olin Engineering Complex, 312

Carlos Otero PHD
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