SAI PRANAV KOYYADA

Software Researcher, Engineer and Developer

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EXPERIENCE

Summer Intern - Software Engineering
Swiftly

June 2020 – August 2020   Stockholm, Stockholm County, Sweden

- Proposed scalable and maintainable software architecture for AI-based staffing and recruiting platform
- Contributed to AI-based candidate search algorithm for job openings.
- Created micro-service using RESTAPI for video streaming to support course distribution on the platform.
- Implemented Swedish BankID authentication for the platform.
- Built chat support for platform using django-channels.

Software Engineering Internship
Hindustan Computer Limited Enterprises

August 2019 – Dec 2019   Hyderabad, Telangana, India

- Investigated the performance of existing memory management algorithms.
- Devised algorithm with self learning AI capabilities for proposed alternative Memory management Theory.
- Experiment its feasibility using multiple frameworks.
- Built a hardware monitor and bench-marking engine.
- Simulate the proposed algorithm over the benchmark engine to compute its performance.

PROGRAMMING SKILLS

Python | Javascript | C/C++ | Java | Elixir

TOOLS & TECHNOLOGIES

Django | Flask | Nodejs | Express | Plug | RESTAPIs
Micro-Services | React | Angular | Bootstrap | Bulma CSS
MongoDB | Redis | PostgreSQL | MySQL | Pandas
Scikit-Learn | TensorFlow | Keras | OpenCV
Natural Language Tool Kit | Message Passing Interface | OpenMP
Git | GitHub | Jenkins | CircleCI | Travis-CI | Docker
Kubernetes | Sonarqube

SOFTWARE ENGINEERING SKILLS

Agile & Lean approaches | Software design and architecture
Software metrics | Software maintainability | Software Quality
Version Control | CI/CD Pipelines

EDUCATION

Master's in Software Engineering
Blekinge Tekniska Högskola (BTH)

Jan 2020 – Present   Karlskrona, Sweden

Bachelor's in Computer Science and Engineering
Jawaharlal Nehru Technological University

Aug 2016 - Jan 2020   Telangana, India

RECENT PROJECTS

Browser based face recognition and user attention monitor
Javascript | Tensorflow.js | face-api.js | Bootstrap

Image classifier for breast cancer detection
Python | Tensorflow

Performance analysis on machine learning algorithms and breast cancer classification
Python | Pandas | Scikit-Learn | Matplotlib

Mynk - Expense Manager
Python | Django | Javascript | Ajax | PostgresSQL | Bootstrap

Video rental service and streaming API
Nodejs | Javascript | Express

Intrinsic Plagiarism Detector
Python | Natural Language Processing | WordNET | String Matching Techniques | Stylometric Analysis

RESEARCH

Maintainability Analysis and Feature Implementation on Open Source Software - Specmate by Qualicen

Blekinge Tekniska Högskola

📅 September 2020 – October 2020   📍 Karlskrona, Blekinge, Sweden

| Maintenance and Evolution | Program comprehension |

| Impact analysis | Software Maintainability |

This research captures reflections on the maintainability of Specmate, a requirements modeling and test generation tool, over 3 Sprints each inspecting and analyzing its code structure, quality, and response to change.

An Analysis on Agile and Lean approaches

Blekinge Tekniska Högskola

📅 September 2020 – October 2020   📍 Karlskrona, Blekinge, Sweden

| Software Development | Agile | Lean |

This research is an investigative study on principles and values of Agile and Lean approaches of software development and challenges associated with them in practical ecosystems.

GQM based empirical study on Maintainability of Open Source Software - Jabref

Blekinge Tekniska Högskola

📅 April 2020 – May 2020   📍 Karlskrona, Blekinge, Sweden

| Software Metrics | Goal Question Metrics | Software Maintainability |

The research identifies modules with low maintainability in Jabref, an open-sourced cross-platform reference and citation manager written in java over its stable releases from version 3.4 to 5.0.

Application of the System-Theoretic Process Analysis for Security

Blekinge Tekniska Högskola

📅 January 2020 – February 2020   📍 Karlskrona, Blekinge, Sweden

| Software Security | Software Quality | STPA-Sec |

This research explores the capability of System-Theoretic Process Analysis for security (STPA) for hazard analysis on dynamic system behaviours.

Threat modelling for software security and quality using STRIDE

Blekinge Tekniska Högskola

📅 January 2020 – February 2020   📍 Karlskrona, Blekinge, Sweden

| Software Security | Software Quality |

This research analyse the affects of threat identification and modelling using STRIDE on software security and quality

AREA OF INTERESTS

| Software architecture |

| software reusability and maintainability |

| Design conformance |

| Continuous integration |

| Machine Learning | Artificial Intelligence |

VOLUNTEER

Chief Coordinator/Head - Coding Club

Jawaharlal Nehru Technological University College of Engineering

📅 September 2017 - December 2019

A community of student programmers organizing coding contest and technical workshops in collaboration with industry and alumni for peer learning. My job functions included:

- Representative and affiliate for Alumni network
- Student mobilization
- Event and coordinating team management

HONORS AND AWARDS

- State (Telangana) 2nd rank and international rank of 92 in International Informatics Olympiad 2016 conducted by Silver Zone foundation.
- Speaker, Hyderabad security cluster student meet 2018 in collaboration with embassy of The Netherlands.
- Distinction for AI based Fake media content detector in 1st Hyderabad security cluster meet in collaboration with The Hague security delta.
- In top 10% teams of Excite-2018, 6 weeks Product engineering workshop by JHUB, for AI based e-shopping assistant.

REFERENCES

Deepika Badampudi
Professor
Department of Software Engineering
Blekinge Tekniska Högskola

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