

Shrikanth Narayanaswamy Chandrasekaran

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RESEARCH (*Research Assistant*, North Carolina State University) 2017 to present

Interest: Software Engineering, Machine Learning, and Human-Computer Interaction

Focus area: Software Quality Assurance | **Lab:** RAISE(<http://ai4se.net/>) **Advisor:** Dr.Tim Menzies (<http://menzies.us/>)

Our recent empirical study confirms that “96% of the time, we do not want and we do not need data-hungry methods” (refer to publication [1] below).

OTHER RESEARCH AREAS: Code Retrieval, Crowdsourcing, Test case prioritization, and Software Maintenance.

EDUCATION

2017 - **Ph.D. Candidate in Computer Science** at North Carolina State University (*Graduating* - December 2021)

2004 – 2008: 4 year full-time Bachelor of Engineering in Electronics and Communication, Saveetha Engineering College, affiliated to Anna University – Chennai

SKILLS

- ❖ *Programming:* Java (SCJP and SCWCD certified) & Python. *Fundamentals:* Data Structures, Algorithms & Compilers
- ❖ *Statistics:* Hypotheses testing, effect size, analysis of distributions, etc
- ❖ *Machine Learning:* Predictive/Estimate modeling, Weka data mining, scikit, Deep learning (Tensorflow, CNN & RNN) Carrot2, ELK, and OPEN NLP. *Visualization:* Plotly, MATLAB, R, etc.
- ❖ *Front-End:* Java Swing, Eclipse Plugin development and HTML-CSS. *Database:* RDBMS (MySQL & MariaDB).
- ❖ *Distributed computing:* Python multiprocessing on High-Performance computing

PUBLICATIONS

1. **N. C. Shrikanth**, Suvodeep Majumder, and Tim Menzies. Early Life Cycle Software Defect Prediction. Why? How? (To appear in **ICSE '21**).
2. **N. C. Shrikanth**, William Nichols, Fahmid Morshed Fahid, and Tim Menzies. Assessing Practitioner Beliefs about Software Engineering. (To appear in **EMSE '21 Journal**).
3. **N. C. Shrikanth**, and Tim Menzies. 2020. Assessing Practitioner Beliefs about Software Defect Prediction. (**ICSE '20 SEIP**) 🏆 (Best Paper Nominee).
4. Anurag Dwarakanath, **N. C. Shrikanth**, Kumar Abhinav, and Alex Kass. 2016. Trustworthiness in enterprise crowdsourcing: a taxonomy & evidence from data. (**ICSE '16 SEIP**).
5. Anurag Dwarakanath, Upendra Chintala, **Shrikanth N. C.**, Gurdeep Viridi, Alex Kass, Anitha Chandran, Shubhashis Sengupta, and Sanjoy Paul. 2015. CrowdBuild: a methodology for enterprise software development using crowdsourcing (CSI-SE **ICSE '15**).

GRANTED PATENTS

1. Method and system for visual requirements and component reuse driven rapid application composition
2. Incident Prediction and Prevention
3. Generating a Test Script Execution Order

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INDUSTRY EMPLOYMENT HISTORY

Summer 2021 **Microsoft, USA**

Role: Research Intern

Developer Satisfaction (productivity): Perform large-scale data analysis on software engineers' feedback about their day-to-day work and hundreds of software repositories to offer actionable recommendations to improve developer satisfaction across a large unit within Microsoft.

Summer 2020 **Fujitsu Laboratories of America, USA**

Role: Research Intern

Low code platform: Improved deep learning-based 'Code Retrieval' models (using CodeBERT & CodeSearchNet) that catalyze developer productivity.

2014 – 2017 **Accenture Labs, India**

Role: Technology R&D Specialist

- Analyzed obstacles for enterprises to crowdsource software development
- Analyzed voluminous incident tickets and their associated log files of a supermarket chain to prescribe solutions to minimize incident resolution time.
- *Recognized for outstanding contributions*

2011 – 2014 **ABB India Limited, Bangalore India**

Role: Software Engineer | Software Development, LV Systems R&D

- Developed a standalone Low voltage switchgear configuration and reporting tool predominantly based on Java.
- *Star Employee for a quarter*

2008 – 2011 **Infosys Limited, Chennai India**

Role: Senior Systems Engineer

- Built user interface rich integration tools that ease software developers to orchestrate banking services.
- *Finacle on the spot award*

TALKS

- ❖ ICSE'21 - Early Life Cycle Software Defect Prediction. Why? How? <https://youtu.be/oHCUnWygDk>
 - ❖ ICSE'20 - Assessing Practitioner Beliefs about Software Defect Prediction <https://youtu.be/UokXMoP-v7Q?t=2094>
 - ❖ ICSE'20 - What Disconnects Practitioner Belief and Empirical Evidence <https://youtu.be/UbuG6UwVzuU>
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