

Auzi Asfarian

auzi.asfarian12p@apps.ipb.ac.id

Department of Computer Science
Bogor Agricultural University
Kampus IPB Darmaga, Jl.
Meranti Wing 20 Level 5 - 6,
Bogor, 16680, Indonesia

+62 251 8625584
<http://asfarian.staff.ipb.ac.id>

PERSONAL

Male

Born in Bogor, Indonesia on 4th June 1989.

Indonesian Citizen

PROFILE

I have over seven years of academic, research, and personal experience in computer science. I have taught various courses, mainly in computer vision, interaction design, and computer graphics. Furthermore, I also teach course in algorithm and programming. I have conducted various research either as a researcher or research assistant, mainly in the application of computer science techniques in integrated pest management and insects museum which includes computer vision techniques to identify the diseases and assessing their severity and augmented reality application to enhance museum experience. Currently, I am a faculty member of the Computer Science Department at the Bogor Agricultural University. I am the student affair commission at my Department and responsible for various students activity. One of them is as the supervisor at Competitive Programming Community.

EDUCATION

- 2012-2014 **Master of Computer Science**, Bogor Agricultural University
Thesis: Identification of Rice Diseases using Fractal Descriptor and Assessment of Disease Severity of Bacterial Leaf Blight Based on Hill Images”
Advisors: Dr Yeni Herdiyeni, Professor Aunu Rauf
- 2007-2012 **Bachelor of Computer Science**, Bogor Agricultural University
with minor in Operation Research
Thesis: Augmented Reality Mobile Campus Tour in Bogor Agricultural University
Advisors: Firman Ardiansyah, MSi

HONOURS

- 2012 Beasiswa Unggulan, Directorate General of Higher Education, Ministry of National Education, Indonesia
- 2007 Awardee of Test-Free Admission, Interest and Capability Selection, Bogor Agricultural University

RESEARCH AND TEACHING INTERESTS

Interaction Design, Computer Vision, Computer Graphics, Analysis of Algorithm

TEACHING EXPERIENCE

2011-present Lecturer at Computer Science Department, Bogor Agricultural University

Course Title (Undergraduate)

- Human-Computer Interaction
- Introduction to Digital Image Processing
- Interactive Computer Graphics
- Analysis of Algorithm
- Algorithm and Programming
- Data Structure
- Sound and Natural Language Processing (limited on N-Gram section)
- Research Method (limited on writing and presentation section)
- Computer Application (limited on multimedia content)

Course Title (Graduate)

- Multimedia Technology

RESEARCH EXPERIENCE

2015-present **Researcher**, Development of Citizen Scientist Platform to Monitor the Distribution of Invasive Pest Species in Indonesia. Joint project between Computer Science Department and Plant Protection Department, Bogor Agricultural University.

2015-present **Researcher**, Development of Augmented Reality Applications to Enhance Insect Museum Experience. Joint project between Computer Science Department and Plant Protection Department, Bogor Agricultural University.

2014-2015 **Research Assistant**, Development of Medicinal Leaf Identification System Based on Leaf Biometric Characters to Support Plant Conservation In Indonesia. International Cooperation Research between IPB and University of Paris Diderot. Grant from Directorate of Higher Education, Ministry of Education and Culture, Republic of Indonesia. Project Leader: Dr Yeni Herdiyeni

2012-2014 **Research Assistant**, Development of Computer Vision Technology to Support Integrated Pest Management in Paddy Plantation. Joint Project between Computer Science Department and Plant Protection Department, Bogor Agricultural University. Grant from Directorate of Higher Education, Ministry of Education and Culture, Republic of Indonesia. Project Leader: Prof Aunu Rauf

ACADEMIC AND ADMINISTRATIVE EXPERIENCE

2013-present **Student Affair Commission**, Computer Science Department, Bogor Agricultural University.

2012-present **Editor**, Jurnal Ilmu Komputer dan Agri-Informatika (JIKA)

PUBLICATION AND CONFERENCE PAPER

Asfarian A, Ardiansyah F. 2012. Rekeyasa augmented reality mobile campus tour Institut Pertanian Bogor. *Jurnal Ilmu Komputer dan Agri-Informatika (JIKA)*. 1(1):1-6. (In Indonesian)

Asfarian A, Herdiyeni Y, Rauf A. 2014. Computer vision for paddy disease identification to support integrated pest management [abstract]. *Crop Protection Journal* 61:103-104.

Asfarian A, Herdiyeni Y, Rauf A. 2012. Computer vision for paddy disease identification to support integrated pest management. In: *Biodiversity and Integrated Pest Management: Working Together for a Sustainable Future*. 4-5 Juli 2013, Manado, Indonesia; hlm 18.

Asfarian A, Herdiyeni Y, Rauf A, Mutaqin KH. 2013. Paddy diseases identification with texture analysis using fractal descriptors based on Fourier spectrum. In: *International Conference on Computer, Control, Informatics, and It's Application (IC3INA 2013)*; 19-20 November 2013, Jakarta, Indonesia. hlm 77-82. ISBN. 978-1-4799-1076-2.

Maulana RR, Agmalara MA, Asfarian A. 2014. Implementasi Modul Keuangan pada Sistem Informasi Akreditasi Program Studi (SIAPS) Departemen Ilmu Komputer dengan Yii Framework. In: *Seminar dan Rapat Tahunan Bidang MIPA*. 9-11 Mei 2014.

Nurfadhilah E, Herdiyeni Y, Rauf A, Rahmini, Mutaqin KH, Asfarian A. 2014. Analisis Warna CIE Lab Citra Digital Varietas Padi untuk Menentukan Ketahanan Varietas Padi Terhadap Wereng Cokelat. Di dalam: *Seminar Nasional Ilmu Komputer (Semilkom 2014)*. Bogor, 8 Nov 2014. Bogor: Departemen Ilmu Komputer, Institut Pertanian Bogor.

ACADEMIC ASSOCIATION

2015-present **Member**, Indonesia ACM SIGCHI Chapter.

2014-present **Member**, Computational Intelligence Lab, Computer Science Department, Bogor Agricultural University. Active at Computer Vision Research Group <http://cs.ipb.ac.id/~cv>

2012-2014 **Member**, Software Engineering and Information Science Lab, Computer Science Department, Bogor Agricultural University.

SCHOLARLY AND PROFESSIONAL ACTIVITIES

2015 **Organizing Committee**, Mini-Conference 2015. Final task presentation conference in Computer Science Department.

2015 **Organizing Committee**, Special Lecture on Computer Vision for Remote Sensing of the Agriculture. Prof Kohei Arai, Saga University, Japan.

2015 **Assistant**, The Third National Training, 2015 Indonesian Olympiad in Informatics Team.

2015 **Judge**, Outstanding Student, Faculty of Mathematics and Natural Sciences, IPB.

2015 **Organizing Committee**, IdBigData #2 MeetUp in Computer Science Department, IPB.

2015 **Internal Reviewer**, Students Creative Weeks, Faculty of Mathematics and Natural Sciences, ipb.

2014 **Judge and Scientific Committee**, IPB Programming Competition 2014 as a part of National Science Party 2014. <http://pestasains.ipb.ac.id>

- 2014 **Organizing Committee**, Mini-Conference 2014. Final task presentation conference in Computer Science Department.
- 2014 **Internal Reviewer**, Students Creative Weeks, Faculty of Mathematics and Natural Sciences, IPB.
- 2014 **Participant**, 2014 International Partnership Program in Saga University. Pattern Recognition Methods for Remotely Sensed Image Data.
- 2014 **Organizing Committee**, Seminar dan Rapat Nasional Bidang MIPA (SEMIRATA 2014). <http://semirata.fmipa.ipb.ac.id>
- 2013 **Organizing Committee**, Mini-Conference 2013. Final task presentation conference in Computer Science Department.
- 2013 **Judge and Scientific Committee**, IPB Programming Competition 2013 as a part of National Science Party 2013. <http://pestaains.ipb.ac.id>
- 2013 **Organizing Committee**, International Workshop : Linking Agricultural Practices and Computer Vision Technology.
- 2012 **Participant**, 2012 International Partnership Program in Saga University. Special Lecture on Sensing Systems: Patter Recognitions and Understanding.

COMMUNITY SERVICE

- 2014-present **Member**, Indonesian Olympiad in Informatics Team, IPB Bureau.
- 2013 **Instructor**, Training for informatics olympiade. Klinik Pendidikan MIPA.
- 2012-present **Microsoft Office Trainer**
I am a certified Microsoft Office Trainer that based on Authorized Testing Center, Bogor Agricultural university
 - 2015. Bogor Agricultural University. Microsoft Office Traning for Rectorate Staff.
 - 2013. Faculty of Dentist, University of Indonesia. Computer basic training for education personels.
 - 2013. Bogor Agricultural University. Microsoft Office Certification Taining for the Head of Administrations at Bogor Agricultural University.
 - 2012. Bogor Agricultural University. Microsoft Excel Workshop for Statistic Students in Bogor Agricultural University. 2012

TECHNICAL EXPERTISE

Microsoft Office Specialist

- Microsoft Office Specialist 2010 Master
- Microsoft Office Specialist 2010 Expert in Word
- Microsoft Office Specialist 2010 Expert in Excel
- Microsoft Office Specialist 2010 in Word
- Microsoft Office Specialist 2010 in Excel (Perfect Score)
- Microsoft Office Specialist 2010 in PowerPoint
- Microsoft Office Specialist 2010 in Outlook

Microsoft Technical Associate

Software Development Fundamentals (C#)

IBM Technologies

IBM DB2 Academic Associate: DB2 Database and Application Fundamentals

IBM Certified Designer – Cognos 10 BI Reports

Typing Skill

120 WPM (top), 110 WPM (average)

Programming Languages and Skills

C++ and Standard Template Library (STL)

Image processing using OpenCV in C++

Computer graphics using OpenGL and GLFW in C++

Prolog, mainly to create Context Free Grammar

Perl, mainly to develop a parser

Java, mainly for Android and Processing programming

Web Development

Wordpress

Graphical Software

Adobe Photoshop, mainly in image enhancement and restoration

LANGUAGES

Indonesian: Native.

English: Active Reader, TOEFL ITP Score of 603.

RESEARCH SUPERVISION

Undergraduate Program (Finished)

1. Supervisor. Plagiarism Detection in C Language Code using Macro Handle, Fajar Surya Dharma, 2015.
2. Co-Supervisor. Implementasi modul keuangan Sistem Akreditasi Program Studi (SIAPS) Departemen Ilmu Komputer dengan Yii Framework, Rivo Rizki Maulana, 2014.

Undergraduate Program (On-Going)

1. Supervisor. Citizen Science Platform for Invasive Pest Monitoring in Indonesia, Yuliadi Wijaya, 2015.
2. Supervisor. Insects Models Generation using Structured Light Technique, Kusuma Indra Putra, 2015.
3. Supervisor. Insects Models Generation using Focus Technique, Fahmi Zulhasymi, 2015.
4. Supervisor. Augmented Reality EduApps for Chemistry Lesson in High School, M Zahid Rausyanfikri, 2014.
5. Supervisor. Automatic Label Detection and Recognition in Speciment Display, Fikri Ardiansyah, 2014.
6. Supervisor. Information Visualization using Augmented Reality in Speciment Display, Auliansa Muhammad, 2014.
7. Supervisor. Data Warehouse Development in PT Coats Indonesia, Fonda Rizenda, 2014.
8. Supervisor. Location Based Travel Information Sistem for Bogor City, Firman Abadi, 2014.

Vocation Program (On-Going)

1. Supervisor. ... 2015.
2. Supervisor. ... 2015.
3. Supervisor. ... 2015.

REFERENCES

1. Dr Yeni Herdiyeni (yeniherdiyeni@apps.ipb.ac.id), Bogor Agricultural University.
2. Prof. Aunu Rauf (aunu@indo.net), Bogor Agricultural University
3. Dr Agus Bueno (pudesha@yahoo.com), Bogor Agricultural University

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<http://asfarian.staff.ipb.ac.id>